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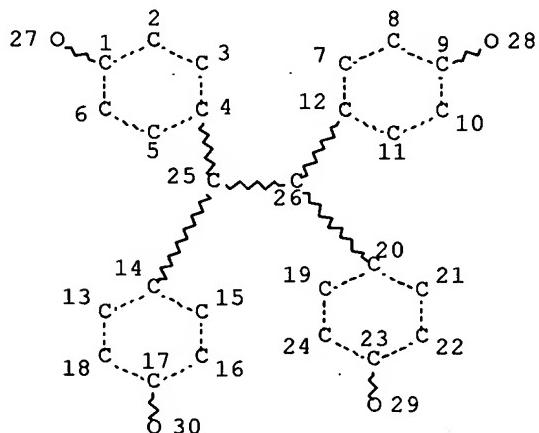
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FILE COVERS 1907 - 13 Mar 2008 VOL 148 ISS 11
FILE LAST UPDATED: 12 Mar 2008 (20080312/ED)

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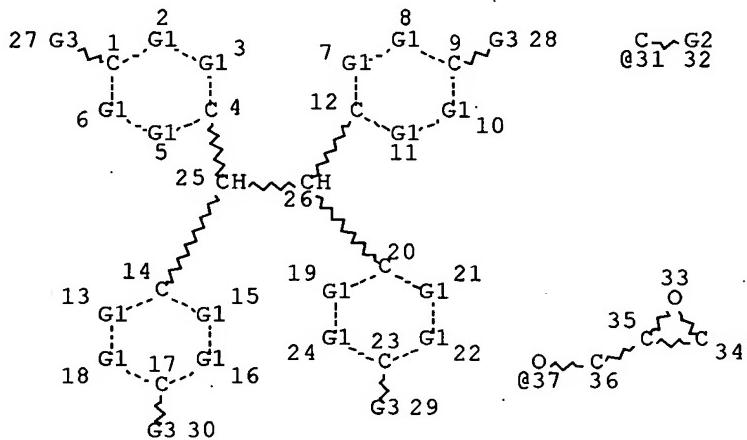
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=> d stat que 114
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE
L3 691 SEA FILE=REGISTRY SSS FUL L1
L6 STR



VAR G1=CH/31

VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/X

VAR G3=OH/37

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 37

STEREO ATTRIBUTES: NONE

L7 SCR 2127

L8 26 SEA FILE=REGISTRY SUB=L3 SSS FUL L6 NOT L7

L9 360 SEA FILE=HCAPLUS ABB=ON PLU=ON L8

L10 809777 SEA FILE=HCAPLUS ABB=ON PLU=ON (RESINS/CV OR RESIN/CV OR RESINIFICATION/CV OR RESINOLS/CV OR GUM/CV OR "GUM RESINS"/CV OR GUMS/CV OR "GUMS (RESINOUS)"/CV OR "NATURAL RESINS"/CV OR "RESINOUS GUMS"/CV) OR RESIN

L12 122999 SEA FILE=HCAPLUS ABB=ON PLU=ON LIGHT-SENSITIVE MATERIALS/CV OR PHOTOSENS? OR LIGHT(2A)SENSIT?

L13 98 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)L10

L14 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND L13

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L14 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:461965 HCAPLUS Full-text

DOCUMENT NUMBER: 146:443115

TITLE: Epoxy resins for **photosensitive** resin compositions with good heat, impact, and moisture resistance

INVENTOR(S): Nakanishi, Masataka; Oshimi, Katsuhiko; Tanaka, Ryutaro; Kurihashi, Toru

PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan; Nippon Kayaku Fukuyama

SOURCE: PCT Int. Appl., 31pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007046262	A1	20070426	WO 2006-JP320184	20061010

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: JP 2005-302619 A 20051018

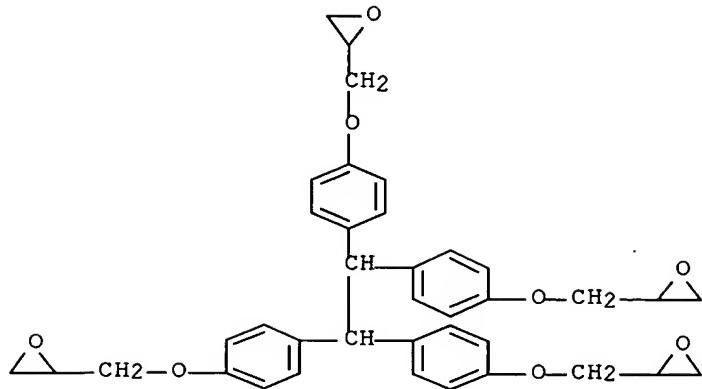
AB Title epoxy resins are obtained by glycidylating ≥ 1 phenol compound comprising $\geq 95\%$ 1,1,2,2-tetrakis(hydroxyphenyl)ethane, wherein the epoxy resins have a tetranucleus-form content of 50-90% and an octanucleus-form content of $\geq 5\%$ by gel permeation measurement and have a total chlorine amount of $\leq 5,000$ ppm. Thus, 99.5 parts TEP-DF (1,1,2,2-tetrakis(4-hydroxyphenyl)ethane) and 460 parts epichlorohydrin were reacted in methanol in the presence of sodium hydroxide at 70° to give an epoxy resin with epoxy equivalent 169 g/quivalent, tetranucleus-form content 79%, octanucleus-form content 17%, and total chlorine content 3220 ppm, 50 parts of which was mixed with 32 parts a phenol novolak and 0.5 parts triphenylphosphine, and cured at 120° for 2 h, 140° for 2 h, and 180° for 6 h to give a cured product, showing glass transition temperature 196° , moisture absorption 2.0%, and Izod impact strength 13 kJ/m.

IT 7328-97-4DP, 1,1,2,2-Tetrakis(4-glycidoxypheyl)ethane, polymers with epoxy compds. and phenolic resins

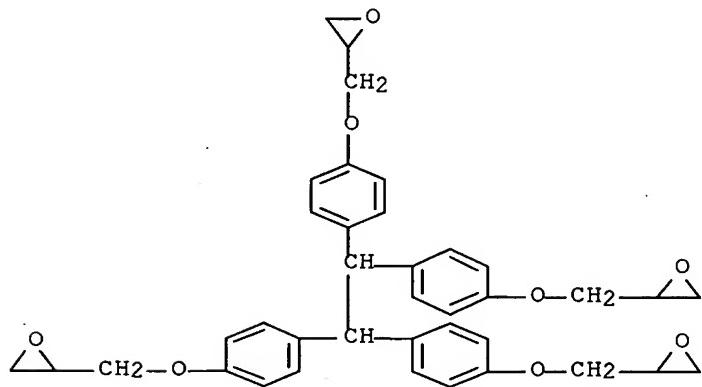
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of epoxy resins for photosensitive resin compns. with good heat, impact, and moisture resistance)

RN 7328-97-4 HCPLUS

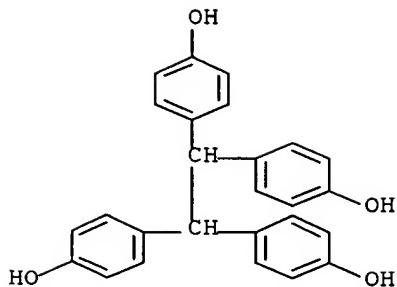
CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



IT 7328-97-4P, 1,1,2,2-Tetrakis(4-glycidoxyphenyl)ethane
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of epoxy resins for photosensitive resin compns. with good heat, impact, and moisture resistance)
 RN 7328-97-4 HCAPLUS
 CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidene]tetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



IT 7727-33-5, TEP-DF
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of epoxy resins for photosensitive resin compns. with good heat, impact, and moisture resistance)
 RN 7727-33-5 HCAPLUS
 CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:190271 HCAPLUS Full-text

DOCUMENT NUMBER: 144:263608

TITLE: **Photosensitive resin composition containing epoxy resin varnish hardening agent**

INVENTOR(S): Oshimi, Katsuhiko; Akatsuka, Yasumasa; Nakanishi, Masataka; Tanaka, Ryutaro

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

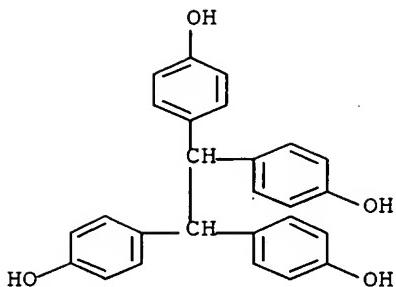
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

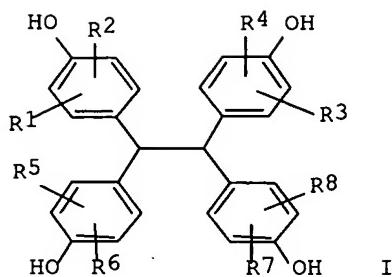
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006058434	A	20060302	JP 2004-238237	20040818
PRIORITY APPLN. INFO.:			JP 2004-238237	20040818
AB	Disclosed is a photosensitive resin composition comprising an alkali aqueous solution-soluble resin, a crosslinker, a photopolymer. initiator, and a hardening agent, wherein said hardening agent is an epoxy resin varnish obtained by effecting glycidyl etherification of a condensation product between glyoxal and phenols with epichlorohydrin and then adding an organic solvent.			
IT	7727-33-5DP, TEP-DF, reaction product with epichlorohydrin RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses) (Photosensitive resin composition containing epoxy resin varnish hardening agent)			
RN	7727-33-5 HCAPLUS			
CN	Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)			



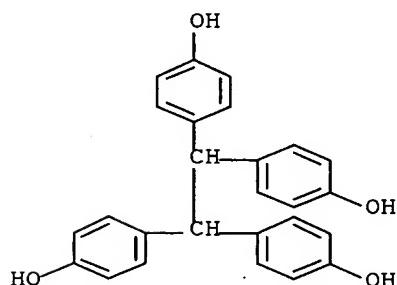
L14 ANSWER 3 OF 13 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:823931 HCPLUS Full-text
 DOCUMENT NUMBER: 143:219462
 TITLE: **Photosensitive resin composition and cured product thereof**
 INVENTOR(S): Tanaka, Ryutaro; Nakanishi, Masataka; Akatsuka, Yasumasa; Koyanagi, Hiroo
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 39 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005076079	A1	20050818	WO 2005-JP1817	20050208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1715381	A1	20061025	EP 2005-709869	20050208
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1918514	A	20070221	CN 2005-80004391	20050208
US 2007161100	A1	20070712	US 2006-597799	20060808
PRIORITY APPLN. INFO.::			JP 2004-31953	A 20040209
			WO 2005-JP1817	W 20050208

GI



- AB Disclosed is a **photosensitive** resin composition with excellent **photosensitivity** whose cured product is excellent in adhesiveness, pencil hardness, solvent resistance, acid resistance, heat resistance, gold plating resistance and the like. Also disclosed is such a cured product. Specifically disclosed is a **photosensitive** resin composition containing a resin (A) soluble in an aqueous alkaline solution, a crosslinking agent (B), a photopolymer. initiator (C) and a curing agent (D), wherein the curing agent (D) is an epoxy compound obtained by glycidylating a compound containing not less than 80% of a tetraphenylethane derivative represented by I (R1-8 independently represent a hydrogen atom, a C1-C4 alkyl group or a halogen atom).
- IT 7727-33-5DP, TEP-DF, reaction product with epichlorohydrin, polymer
 RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)
 (hardening agent; **photosensitive resin** composition and cured product thereof for printed circuit board)
- RN 7727-33-5 HCPLUS
- CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)

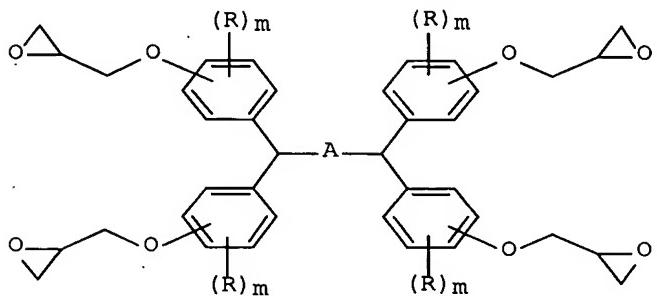


REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 13 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:522678 HCPLUS Full-text
 DOCUMENT NUMBER: 143:68354
 TITLE: UV-sensitive resin composition as solder photoresist . and light-sensitive dry film for manufacturing printed circuit boards
 INVENTOR(S): Naruse, Shoichiro; Saito, Takahide; Tsurumaki, Takahiro; Ono, Takao

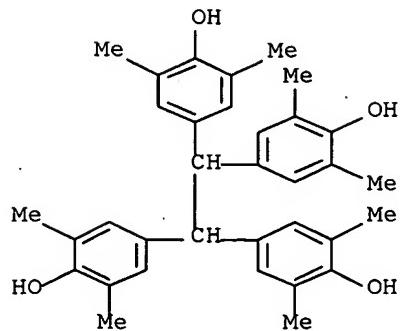
PATENT ASSIGNEE(S): Tamura Kaken Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005157048	A	20050616	JP 2003-396958	20031127
PRIORITY APPLN. INFO.:			JP 2003-396958	20031127
OTHER SOURCE(S):	MARPAT 143:68354			
GI				



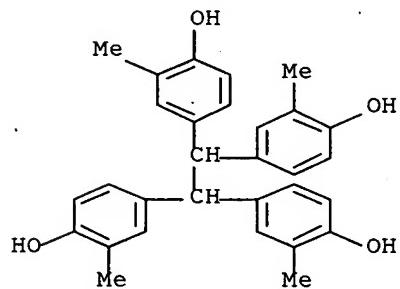
I

- AB The title composition contains an UV-curable resin, a photopolymer initiator, a solvent, and an agent for curing the resin, wherein the agent for curing the resin has general structure I (A = -(CH₂)_n-; n = 0-3; R = H, C₁₋₄ alkyl, C₁₋₄ alkoxy, phenylene; m = integer 1-4). The composition is alkali-developable and shows good characteristics on tackiness, sensitivity, heat-resistance, and coatability.
- IT 107307-04-0 108261-54-7, 1,1,2,2,-Tetrakis(3-methyl-4-hydroxyphenyl)ethane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (agent for curing the resin in UV-sensitive resin composition)
- RN 107307-04-0 HCPLUS
- CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2,6-dimethyl- (CA INDEX NAME)



RN 108261-54-7 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2-methyl- (CA INDEX NAME)

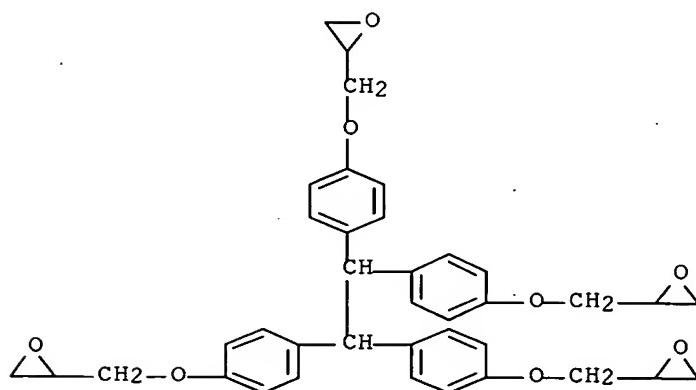


IT 7328-97-4P 123687-37-6P 135882-31-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (agent for curing the resin in UV-sensitive resin composition)

RN 7328-97-4 HCPLUS

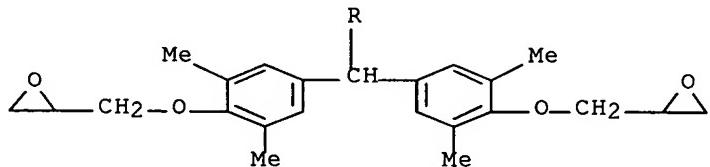
CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



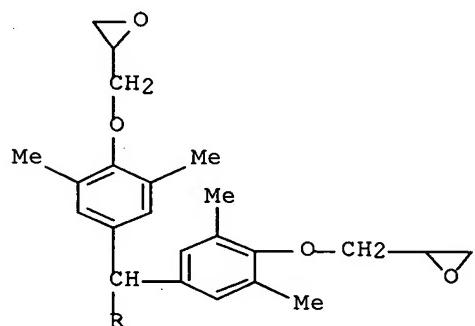
RN 123687-37-6 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis[(2,6-dimethyl-4,1-phenylene)oxymethylene]]tetrakis- (9CI) (CA INDEX NAME)

PAGE 1-A

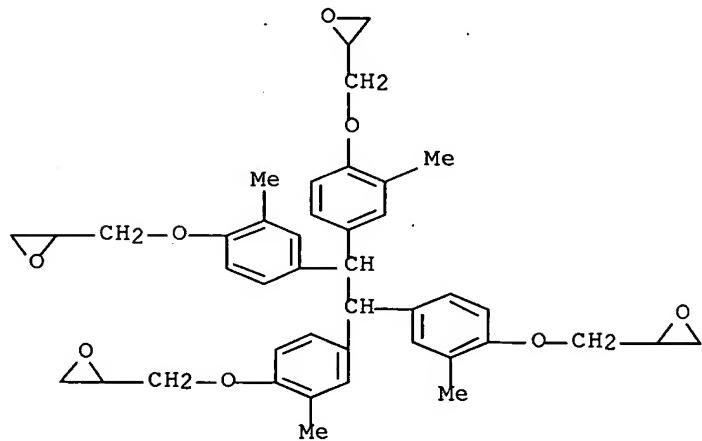


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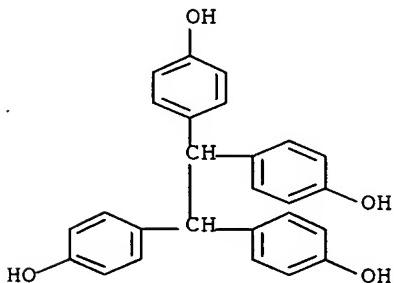
RN 135882-31-4 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis[(2-methyl-4,1-phenylene)oxymethylene]]tetrakis- (9CI) (CA INDEX NAME)



L14 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:492862 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:35128
 TITLE: **Photosensitive** resin compositions having improved transparency to aligner light
 INVENTOR(S): Tomikawa, Masao
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005148112	A	20050609	JP 2003-380950	20031111
PRIORITY APPLN. INFO.:			JP 2003-380950	20031111
AB	The compns., useful for interlayer insulation films or protective films of printed circuit boards, flat panel displays, etc., comprise polymers bearing repeating unit $(CH_2R_1CH_2NHR_2ZaNH)_n$ [R1 = C2-30 bivalent organic group; R2 = C6-30 tri-to-hexavalent organic group; Z = OH, ether, amino, amide, thiol, thioether, OW (W = acid- or alkali-labile leaving group); a = 1-4; n = 5-100,000], photoacid generators, and solvents at weight ratio of 100:(1-50):(100-1500). The above polymers may have another repeating unit $(:CHR_5CH:NHR_6ZbN:)$ [R3, R5 = C2-30 bivalent organic group; R4, R6 = C6-30 tri-to-hexavalent organic group; Z = the same as above; b = 0-4; m, p = 5-100,000; $0.01 < m/(m + p) < 0.99$].			
IT	7727-33-5DP , esters with naphthoquinonediazidesulfonyl chloride RL: CAT (Catalyst use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoacid generators; polyamine-based photosensitive resin compns. having improved transparency to aligner light)			
RN	7727-33-5 HCAPLUS			
CN	Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)			



L14 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:1018969 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:29998
 TITLE: Positive-working **photosensitive** resin composition containing naphthoquinonediazide compound
 INVENTOR(S): Tomikawa, Masao
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004334089	A	20041125	JP 2003-132928	20030512

PRIORITY APPLN. INFO.:

JP 2003-132928 20030512

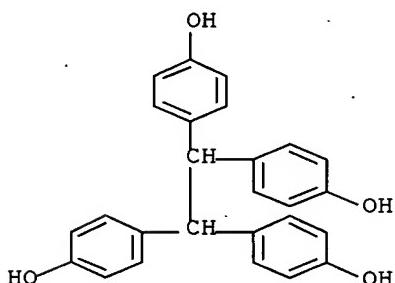
AB Disclosed is the pos.-working **photosensitive resin** composition comprising a resin, a naphthoquinonediazide compound, and ≥1 type of solvent having b.p. 100-250°, wherein the resin has a dissoln. rate 0.1-3 nm/s after the steps of (1)-(3): (1) dissolving the resin having a solid fraction 30 % in Et lactate, (2) forming a film on a 6 in. wafer so as to make the film thickness 1±0.2 µm after prebaking at 90° for 20 min, and (3) dipping the film an aqueous solution containing tetramethylammonium hydroxide 2.38%. The composition is used for a heat resistant protective film for a flat panel display.

IT 7727-33-5DP, reaction product with 5-naphthoquinonediazidesulfonic acid chloride

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos.-working **photosensitive resin** composition containing naphthoquinonediazide compound)

RN 7727-33-5 HCAPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L14 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:351951 HCAPLUS Full-text

DOCUMENT NUMBER: 140:384780

TITLE: **Photosensitive** heat-resistant resin composition for protection of elements in electronic device and precursor composition for the resin

INVENTOR(S): Tomikawa, Masao; Ikeda, Takanobu

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004133088	A	20040430	JP 2002-295853	20021009
PRIORITY APPLN. INFO.:			JP 2002-295853	20021009

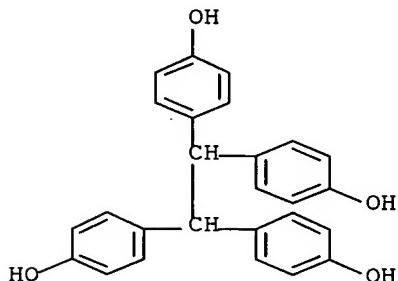
AB The composition contains a heat-resistant resin with thermal decomposition temp $\geq 300^\circ$, a compound generating acids under UV or chemical laser, etc., and a component for improvement of adhesion to metals. The precursor composition contains a resin represented as $[C(O)R1(Y)a(CO2R3)cCONHR2(Z)b(CO2R4)dNH]n$ ($R1 = 2\text{-}6\text{-valent C2}\text{-}30$ organic group; $R2 = 2\text{-}6\text{-valent C2}\text{-}40$ organic group; $R3, R4$ are group containing H, Cl-20 monovalent organic group, acid- or alkali-sensitive leaving group; Y, Z = monovalent group containing OH, ether, amino, amide, thiol, and/or thioether; $a, b, c, d = 0\text{-}4$; $a + b + c + d > 0$; $n = 10\text{-}1,000,000$), the acid-generating compound, the adhesion improver, and a crosslinking accelerator. A varnish containing the resin composition or the precursor composition is applied on a substrate having metal electrodes (preferably Au bumps), prebaked at $50\text{-}150^\circ$, exposed, developed to remove the composition on the electrode, and heated at 280° for 60 min to give a semiconductor device with O concentration 1-30 atomic% on the electrode. The metal electrodes are prevented from contamination by organic substances and increase of elec. resistance in the semiconductor device can be minimized.

IT 7727-33-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(acid generator from; in **photosensitive** heat-resistant
resin composition for protection of elements in electronic device)

RN 7727-33-5 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L14 ANSWER 8 OF 13 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:452607 HCPLUS Full-text
 DOCUMENT NUMBER: 133:96784
 TITLE: **Photosensitive** resin precursor composition
 INVENTOR(S): Tomikawa, Masao; Okuda, Ryoji; Fujita, Yoji
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000187317	A	20000704	JP 1999-285482	19991006
PRIORITY APPLN. INFO.:			JP 1998-290480	A 19981013

OTHER SOURCE(S): MARPAT 133:96784
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

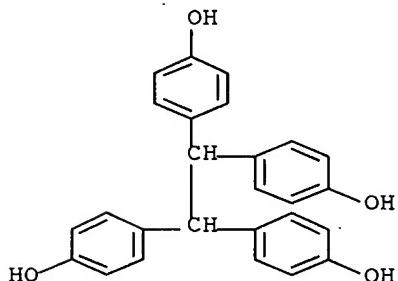
AB The title resin precursor composition contains (a) a polymer based on as structural unit of the formula [COR1(OH)p(CO2R3)mCONHR2(OH)qNH]n (R1 = C \geq 2 organic group with 3 to 8 valences; R2 = C \geq 2 organic group with 2 to 6 valences; R3 = H, C1-10 organic group; n = 10-100,000; m = 1 or 2; p, q = 0-4, p \neq q \neq 0) and (b) \geq 1 quinonediazide compound selected from I-IV (Q = H, V, VI, all Q groups are not H at the same in the each compd; x = 0-2). The pos.-working **photosensitive** polyimide precursor composition shows improved alkali-developability and is especially suitable for semiconductor device fabrication.

IT 7727-33-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of; in preparation of quinonediazide compds. for
photosensitive resin precursor composition)

RN 7727-33-5 HCPLUS

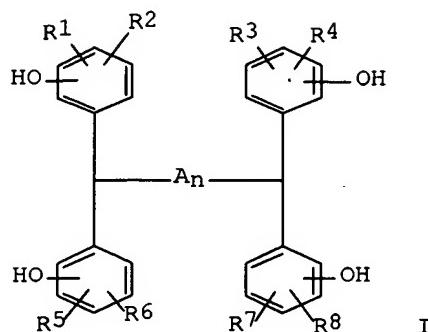
CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L14 ANSWER 9 OF 13 HCPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:180076 HCPLUS Full-text
DOCUMENT NUMBER: 118:180076
TITLE: Positively-working photoresist using phenolic resin and quinonediazide
INVENTOR(S): Kawada, Masaji; Kashiwagi, Mikifumi; Koito, Kazuko
PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04301851	A	19921026	JP 1991-91604	19910329
JP 2817442	B2	19981030		
PRIORITY APPLN. INFO.:			JP 1991-91604	19910329

GI



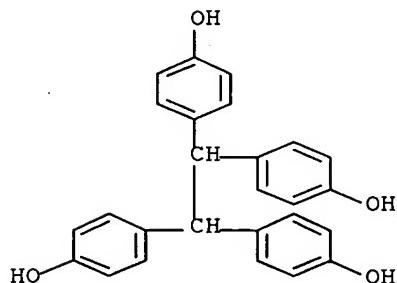
AB The title composition contains an alkali-soluble phenol resin and ≥ 1 **photosensitive** phenolic compds. I [A = alkylene, alkenyl, arylene; n = 0, 1; R1-8 = H, halo, OH, C1-4 alkyl, alkyl, C2-5 alkenyl, alkenyl, C6-15 aryl, aryl, C1-6 alkoxy, C1-5 acyl] whose OH are quinonediazidosulfonate- esterified and mixed-esterified with OSO₂R₉ and/or OCOR₁₀ [R₉-10 = alkyl, aryl]. The resist shows improved dimensional stability.

IT 7727-33-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenolic **resin** and quinonediazide and, for photoresist)

RN 7727-33-5 HCPLUS

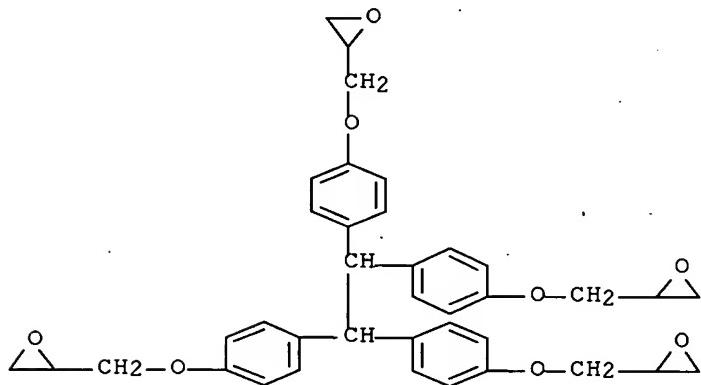
CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L14 ANSWER 10 OF 13 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1980:648247 HCPLUS Full-text
 DOCUMENT NUMBER: 93:248247
 ORIGINAL REFERENCE NO.: 93:39659a,39662a
 TITLE: Copper-laminated aluminum supports for lithographic plates
 PATENT ASSIGNEE(S): Polychrome Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55065591	A	19800517	JP 1978-125680	19781012
PRIORITY APPLN. INFO.:			JP 1978-125680	A 19781012
AB A lithog. photosensitive plate is composed of (1) an Al support, (2) a 5.5-16.2 mg/m ² Cu layer having lipophilic semimatte surface (surface roughness 0.20-0.25 μ), and (3) a pos.- or neg.-working photoresist layer of thickness 538-3498 mg/m ² . Thus, an Al plate was treated in a 20 volume% Alumon solution (containing 50.8 g Zn/gal), then Cu-electroplated in a bath containing Rochelle salt, CuCN, Na ₂ CO ₃ , and NaCN to form a semimatte Cu layer, and subsequently coated with a diazo type photoresist composition. The plate was imagewise exposed, developed, and the Cu layer etched with an Fe(NO ₃) ₃ solution to give a lithog. plate.				
IT 30621-65-9				
RL: USES (Uses) (photosensitive resin compns. containing)				
RN 30621-65-9	HCAPLUS			
CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidene]tetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)				
CM 1				
CRN 7328-97-4				
CMF C38 H38 O8				



L14 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1979:213239 HCAPLUS Full-text
 DOCUMENT NUMBER: 90:213239
 ORIGINAL REFERENCE NO.: 90:33807a,33810a
 TITLE: Water-developable **photosensitive** lithographic plates
 PATENT ASSIGNEE(S): Polychrome Corp., USA
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53145707	A	19781219	JP 1978-43763	19780413
DK 7705650	A	19781120	DK 1977-5650	19771219
NO 7704516	A	19781121	NO 1977-4516	19771230
NL 7801624	A	19781121	NL 1978-1624	19780213
AU 7836025	A	19791115	AU 1978-36025	19780511
GB 1588620	A	19810429	GB 1978-19117	19780512
SE 7805736	A	19781120	SE 1978-5736	19780518
DE 2821776	A1	19781130	DE 1978-2821776	19780518
FR 2391488	A1	19781215	FR 1978-14930	19780519

PRIORITY APPLN. INFO.:

US 1977-798282 A 19770519

AB A metallic support is coated with a water-soluble resin and subsequently with a **photosensitive** resin composition containing a water-permeable, water-insol., lipophilic resin and a pos.- or neg.-working sensitizer to give a water-developable **photosensitive** lithog. plate. Thus, an anodized Al support was coated with a 1% poly(vinyl alc.) solution, then coated with a **photosensitive** composition containing Epon 1031 (an epoxy resin from Shell Chemical Corp.) 2, a sensitizer (a reaction product of p-diazodiphenylamine-H₂SO₄ salt and 2-hydroxy-4-methoxybenzophenonesulfonic acid) 1, a basic blue dye 0.1, and Methyl orange 0.025 part to give a **photosensitive** lithog. plate. The **photosensitive** plate was imagewise exposed to UV light and developed with water to give a lithog. plate from which ≥10,000 prints were obtained.

IT 30621-65-9

RL: USES (Uses)

(photosensitive resin composition containing a sensitizer and, for water-developable lithog. plates)

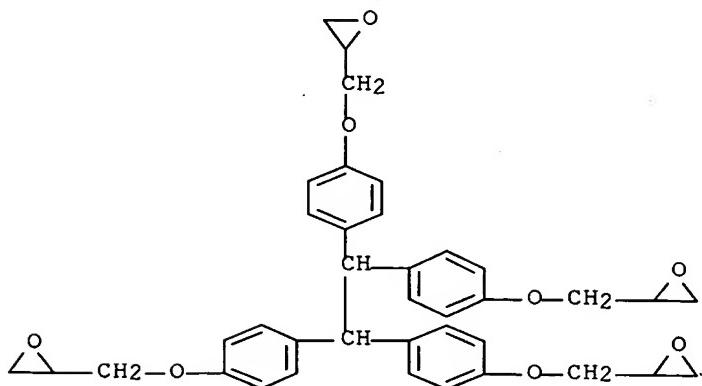
RN 30621-65-9 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



DOCUMENT NUMBER: 90:46590
 ORIGINAL REFERENCE NO.: 90:7364h, 7365a
 TITLE: **Photosensitive diazo resins for color proofs**
 INVENTOR(S): Burkle, Stephen Edward; Deutsch, Albert
 PATENT ASSIGNEE(S): Polychrome Corp., USA
 SOURCE: Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2810310	A1	19780928	DE 1978-2810310	19780309
US 4132553	A	19790102	US 1977-780948	19770324
JP 53119996	A	19781019	JP 1977-137725	19771116
NL 7800140	A	19780926	NL 1978-140	19780105
GB 1584849	A	19810218	GB 1978-11334	19780322
FR 2385123	A1	19781020	FR 1978-8558	19780323
FR 2385123	B1	19850628		

PRIORITY APPLN. INFO.: US 1977-780948 A 19770324

AB **Photosensitive** diazo resins with a resinous binder and dyes soluble in organic solvents are coated on a transparent film, exposed, and developed as yellow, cyan, magenta, and black color sepn. to be superposed as proofs for comparison with the original. The diazo resins are carboxylates or sulfonates, preferably 2-hydroxy-4-methoxybenzophenone-5-sulfonates, of paraformaldehyde condensates of diazonium salts with 4-phenoxy or 4-phenylthio groups, may contain Me, MeO, or EtO groups, and have a mol. weight of 60,000-80,000. Thus, p-phenoxybenzenediazonium ZnCl₂ double salt was condensed with paraformaldehyde at 5°, and precipitated with ZnCl₂, and treated with the sulfonic acid. For a yellow proof the sensitizer 40.2 g with Epon 1031 resin 60.2, Astrazon Yellow MS-40 6, and Maxillon Brilliant Flavin MS-40 24.1 g was dissolved in a mixture of HOCH₂CH₂OMe 300, CH₂Cl₂ 200, C₂H₄Cl₂ 300, and MeOH 200 mL, and applied to a 50μ polyester film at 0.01-0.2 mg/cm².

IT 30621-65-9

RL: USES (Uses)

(photosensitive composition containing diazo resins and, for color proofing preparation)

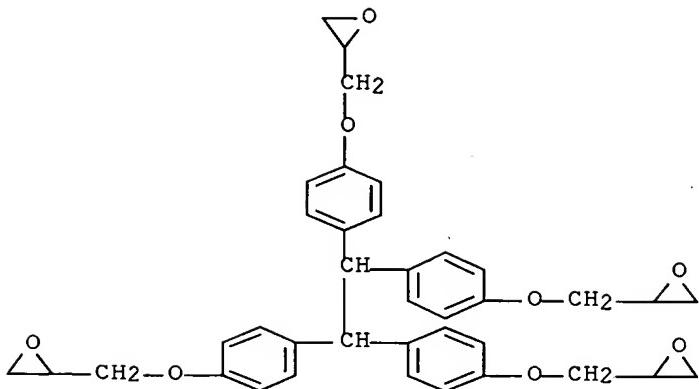
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L14 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:131116 HCAPLUS Full-text

DOCUMENT NUMBER: 86:131116

ORIGINAL REFERENCE NO.: 86:20563a,20566a

TITLE: Photocopying material

INVENTOR(S): Houtermans, Antonius H. I.

PATENT ASSIGNEE(S): Oce-van der Grinten N. V., Neth.

SOURCE: Ger. Offen., 19 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2607091	A1	19760902	DE 1976-2607091	19760221
FR 2302549	A1	19760924	FR 1976-4940	19760223

PRIORITY APPLN. INFO.:

AB Neg. working 0.75-1.5 g/m² coatings of a diazo resin with an oleophilic resinous binder (Brit. 1,280,885; CA 78:50604f) can be developed without use of a surfactant rendering the resin water-soluble in the developer by incorporating 30-40% surfactant in the layer and simply spraying or rubbing it with water for development. Environmental pollution is thus greatly reduced. Quaternary ammonium salts, such as triethanolamine lauryl sulfate and poly(vinylpyrrolidone), are suitable. Some surfactants require water or a C4-7 alc. as cosolvent in the coatings. Thus, a printing plate with a 1 g/m² coating was obtained by applying to an Al sheet a solution of com. Diazo Litho A BF4 resin 4.5, Epon 1006 epoxy resin 1.5, Armours Aquad T 5 g and Me Cellosolve. A water current developed the plate yielding several thousand excellent prints.

IT 30621-65-9

RL: USES (Uses)

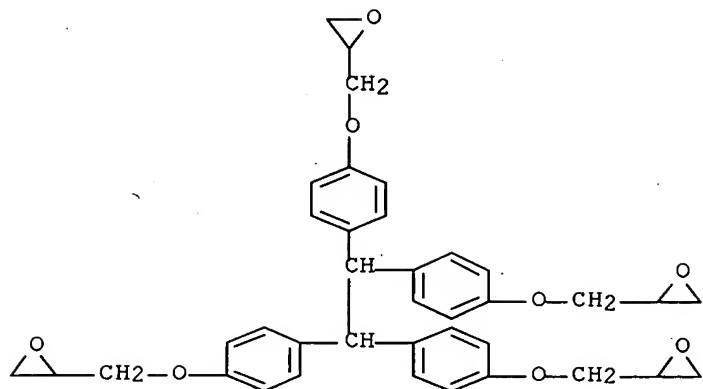
(photosensitive compns. containing diazo resin,
surfactants and, neg.-working water-developable, for printing plates)

RN 30621-65-9 HCAPLUS

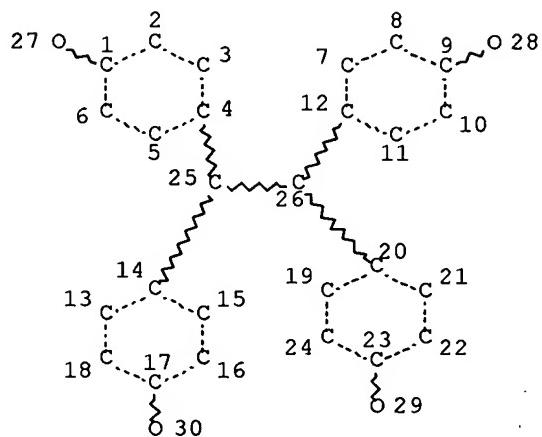
CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4
 CMF C38 H38 O8



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 L1 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

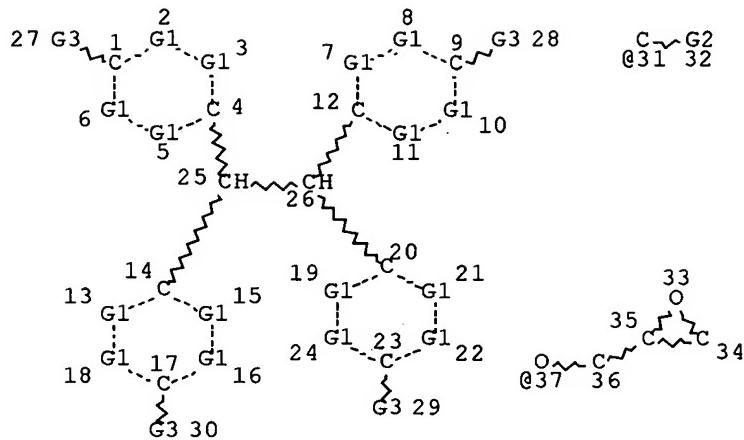
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

L3 691 SEA FILE=REGISTRY SSS FUL L1
 L6 STR



VAR G1=CH/31

VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/X

VAR G3=OH/37

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 37

STEREO ATTRIBUTES: NONE

L7 SCR 2127

L8 26 SEA FILE=REGISTRY SUB=L3 SSS FUL L6 NOT L7

L9 360 SEA FILE=HCAPLUS ABB=ON PLU=ON L8

L10 809777 SEA FILE=HCAPLUS ABB=ON PLU=ON (RESINS/CV OR RESIN/CV OR RESINIFICATION/CV OR RESINOLS/CV OR GUM/CV OR "GUM RESINS"/CV OR GUMS/CV OR "GUMS (RESINOUS)"/CV OR "NATURAL RESINS"/CV OR "RESINOUS GUMS"/CV) OR RESIN

L12 122999 SEA FILE=HCAPLUS ABB=ON PLU=ON LIGHT-SENSITIVE MATERIALS/CV OR PHOTOSENS? OR LIGHT(2A)SENSIT?

L13 98 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)L10

L14 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND L13

L22 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L12

L23 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 NOT L14

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L23 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:113124 HCAPLUS Full-text

DOCUMENT NUMBER: 138:161107

TITLE: Negative-working **light-sensitive** material composition for **light-sensitive** lithographic printing master plates

INVENTOR(S): Furukawa, Akira

PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

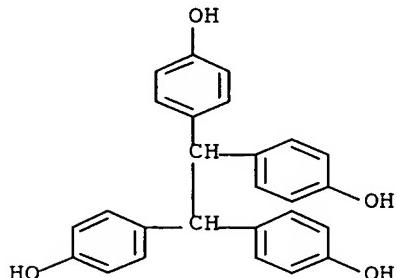
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003043687	A	20030213	JP 2001-227623	20010727
PRIORITY APPLN. INFO.:	JP 2001-227623			
AB	The title composition contains polymer and a water-soluble azide, wherein the polymer has styrene double bonds. The composition provides the master plates of the good properties on resolution, sensitivity, contact, storageability, and development.			
IT	7727-33-5, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane RL: RCT (Reactant); RACT (Reactant or reagent) (neg.-working light-sensitive material composition for light-sensitive lithog. printing master plates)			
RN	7727-33-5 HCPLUS			
CN	Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)			



L23 ANSWER 2 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:429491 HCPLUS Full-text

DOCUMENT NUMBER: 135:38920

TITLE: On-press process of lithographic plates having IR laser sensitive mask layer

INVENTOR(S): Teng, Gary Ganghui

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 9 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6245481	B1	20010612	US 1999-416843	19991012
PRIORITY APPLN. INFO.:	US 1999-416843			
AB	This patent describes on-press process of a lithog. plate comprising a substrate, a photosensitive layer, and a top laser sensitive mask layer. The plate is exposed by first digitally exposing the plate with an IR radiation to selectively remove or render transparent to an actinic radiation exposed areas of the mask layer and then overall exposing the plate with the actinic radiation to cause hardening or solubilization of the photosensitive layer in the IR laser exposed areas. The exposed plate is processed on a printing			

press by contacting the plate with ink and/or fountain solution during initial press operation to remove the mask layer and develop the **photosensitive** layer. Optionally, an ink and/or fountain solution soluble or dispersible interlayer may be interposed between the mask layer and the **photosensitive** layer.

IT 30621-65-9, Epon-1031

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(lithog. printing plate comprising **photosensitive** layer and IR laser sensitive mask layer)

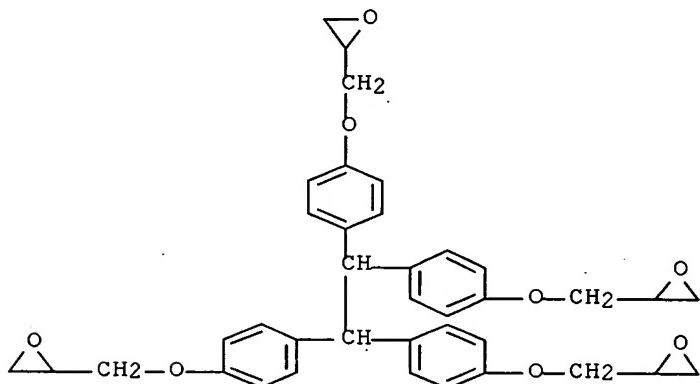
RN 30621-65-9 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:474295 HCAPLUS Full-text

DOCUMENT NUMBER: 133:96797

TITLE: **Photosensitive** resin composition containing polybenzoxazole precursor and quinonediazide compound

INVENTOR(S): Tomikawa, Masao; Okuda, Ryoji; Fujita, Yoji

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

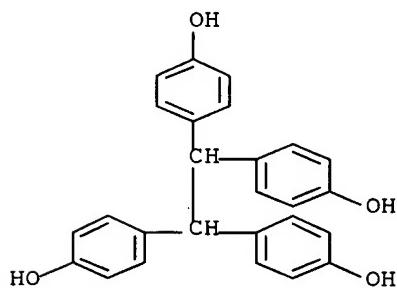
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000194133	A	20000714	JP 1999-286546	19991007
PRIORITY APPLN. INFO.:			JP 1998-299437	A 19981021

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB The title resin precursor composition contains (a) a polymer based on a structural unit [COR₁CONHR₂(OH)_qNH]_n (R₁ = C \geq 2 divalent organic group; R₂ = C \geq 2 organic group with 3 to 6 valences; n = 10-1000,000; q = 1-4) and (b) \geq 1 quinonediazide compound selected from I-IV (Q = V, VI, H; all the Q groups in the each compound are not H at the same time; x = 0-2). The pos.-working polybenzoxazole precursor composition shows improved alkali-developability.
- IT 7727-33-5, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of naphthoquinonediazide sulfonate)
- RN 7727-33-5 HCPLUS
- CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L23 ANSWER 4 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:665138 HCPLUS Full-text
 DOCUMENT NUMBER: 131:305139
 TITLE: **Photosensitive** compound used for resist in manufacture of semiconductor device
 INVENTOR(S): Oshita, Atsushi; Kumata, Teruhiko; Fujino, Atsuko
 PATENT ASSIGNEE(S): Mitsubishi Electric Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11286464	A	19991019	JP 1998-276997	19980930
PRIORITY APPLN. INFO.:			JP 1998-22457	A 19980204

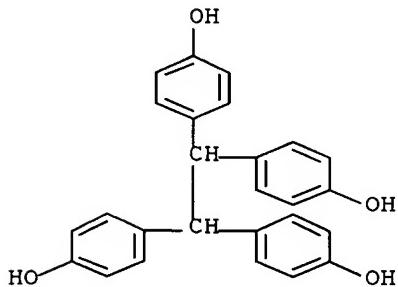
- AB The **photosensitive** compound contains a cluster-type mol. having an alkali-soluble group, such as OH and COOH. A mol. weight of the cluster-type mol. is 500-2,000. A **photosensitive** composition containing the **photosensitive** composition and a photoacid is applied on a substrate, imagewise exposed by an energy ray, and developed.

- IT 7727-33-5
RL: NUU (Other use, unclassified); USES (Uses)

(photosensitive compound used for resist in manufacture of semiconductor device)

RN 7727-33-5 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L23 ANSWER 5 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:211117 HCPLUS Full-text

DOCUMENT NUMBER: 128:257230

TITLE: Preparation of tetrakisphenolethanes

INVENTOR(S): Hyodo, Hiroshi; Inatomi, Shigeki

PATENT ASSIGNEE(S): Asahi Organic Chemicals Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10087537	A	19980407	JP 1996-243690	19960913
JP 3381819	B2	20030304		

PRIORITY APPLN. INFO.: JP 1996-243690 19960913

OTHER SOURCE(S): CASREACT 128:257230

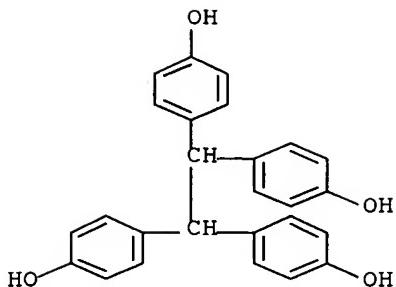
AB Title compds., useful as materials for thermosetting epoxy resins, curing agents for epoxy resins, ballasts of **photosensitive** agents for photoresists, modifiers for cresol novolak resins, antioxidants, host compds. for inclusion compds., etc. (no data), are prepared by reaction of phenols with OCHCHO in the presence of acid catalysts and ≥ 5 weight% Me₂CO (based on phenols) at $\leq 60^\circ$. PhOH was reacted with OCHCHO aqueous solution in the presence of H₂SO₄ and Me₂CO at 40° for 12 h to give a mixture containing tetrakisphenolethane acetone inclusion compds., which was treated with H₂O at 15° overnight to give 22.78 (4-HOC₆H₄)₂CHCH(C₆H₄OH-4)₂.

IT 7727-33-5P, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane
108261-54-7P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of tetrakisphenolethanes by condensation of phenols with glyoxal in presence of acetone and acid catalysts)

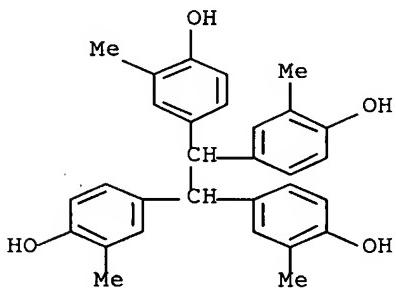
RN 7727-33-5 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



RN 108261-54-7 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2-methyl- (CA INDEX NAME)]



L23 ANSWER 6 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:804784 HCPLUS Full-text

DOCUMENT NUMBER: 123:315749

TITLE: Preparation of high-purity tetrakisphenolethanes

INVENTOR(S): Inatomi, Shigeki; Kai, Isao; Mori, Shigeru

PATENT ASSIGNEE(S): Asahi Organic Chem Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07173089	A	19950711	JP 1991-122888	19910426
JP 2897850	B2	19990531		

PRIORITY APPLN. INFO.:

JP 1991-122888 19910426

AB The title compds., useful as materials for thermosetting resins, curing agents for epoxy resins, ballasts of **photosensitive** agent for photoresists, modifiers for phenolic resins, antioxidants, etc., are prepared in high purity by condensation of phenols with glyoxal in the presence of acidic catalysts, concentration of the reaction mixture to remove volatile components, and then treatment of the residual matter with organic solvents capable of dissolving low-mol.-weight compds. and higher condensates and acting as poor solvents to the title compds. A mixture of PhOH, glyoxal, and p-MeC₆H₄SO₃H was heated

under reflux over 1 h and further stirred at the reflux temperature for 6 h. Subsequently the reaction mixture was vacuum-concentrated and the solid residue was ground and treated with acetone under stirring to give 11.3% (4-HOC₆H₄)₂CHCH(C₆H₄OH-4)₂ with purity 94.4%.

IT 7727-33-5P, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane

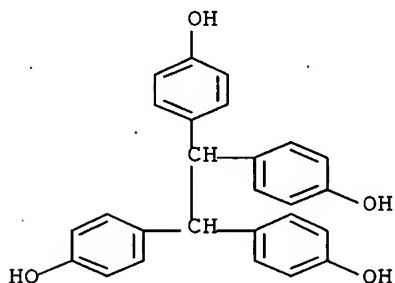
108261-54-7P

RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of tetrakisphenolethanes in high purity by acid-catalyzed condensation of phenols with glyoxal, concentration, and treatment with organic solvents)

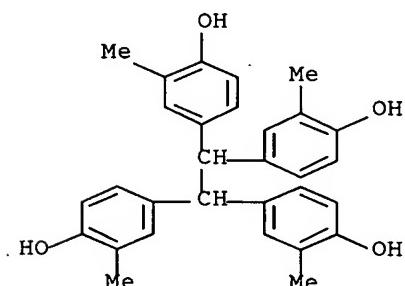
RN 7727-33-5 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



RN 108261-54-7 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2-methyl- (CA INDEX NAME)



L23 ANSWER 7 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:543401 HCPLUS Full-text

DOCUMENT NUMBER: 122:278145

TITLE: **Photosensitive** composition and method for forming patterns

INVENTOR(S): Hayashi, Takao; Onishi, Yasunobu; Sato, Kazuo; Chiba, Kenji; Miyamura, Masataka

PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan

SOURCE: Ger. Offen., 58 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4408318	A1	19940915	DE 1994-4408318	19940311
DE 4408318	C2	19990909		
JP 06266111	A	19940922	JP 1993-79113	19930312
JP 3293940	B2	20020617		
KR 148624	B1	19981102	KR 1994-4755	19940311
DE 4447786	B4	20050504	DE 1994-4447786	19940311
JP 07146558	A	19950606	JP 1994-150243	19940630
JP 3441167	B2	20030825		
US 6703181	B1	20040309	US 1996-709879	19960909
PRIORITY APPLN. INFO.:			JP 1993-79113	A 19930312
			JP 1993-189396	A 19930630
			DE 1994-4408318	A 19940311
			US 1994-208811	B1 19940311
			US 1995-494303	B1 19950623

OTHER SOURCE(S): MARPAT 122:278145

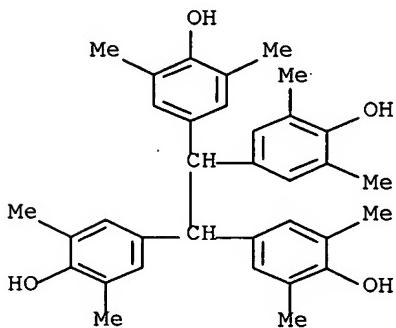
AB The title composition comprises (1) an alkali-soluble polymer containing an alkali-soluble group protected by an acid-labile group, (2) a photoacid generator, and (3) ≥1 compound selected from imidazole, alanine, adenine, adenosine, and a quaternary ammonium compound and which is mixable in a resist film and/or (4) a phenolic compound. The material has high sensitivity to short wavelengths, and high solubility and can be used for fine resist structures.

IT 107307-04-0

RL: MOA (Modifier or additive use); USES (Uses)
(photoresist composition)

RN 107307-04-0 HCPLUS

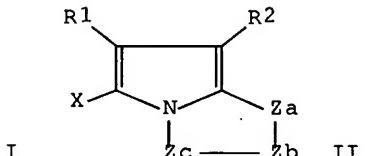
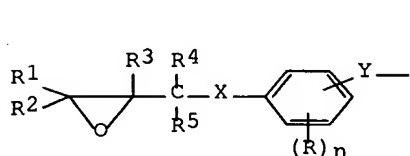
CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2,6-dimethyl- (CA INDEX NAME)



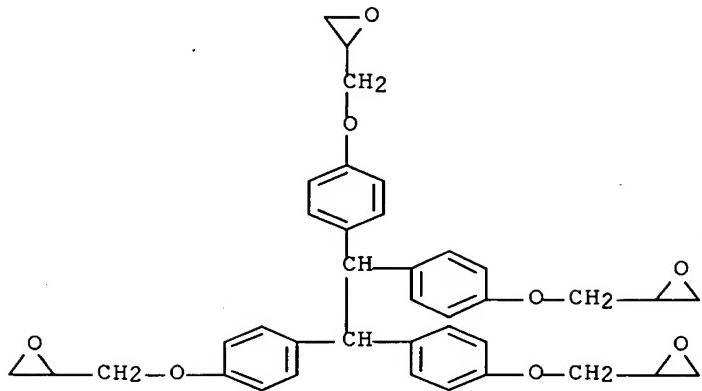
L23 ANSWER 8 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1994:641584 HCPLUS Full-text
 DOCUMENT NUMBER: 121:241584
 TITLE: photographic color image formation

INVENTOR(S): Deguchi, Yasuaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05333503	A	19931217	JP 1992-139348	19920529
US 5415982	A	19950516	US 1993-68350	19930528
PRIORITY APPLN. INFO.: GI				JP 1992-139348 A 19920529



- AB A full color Ag halide photog. material contains in its Ag halide **photosensitive** layer or non-**photosensitive** hydrophilic colloid layer, ≥ 1 of water-insol. epoxy compds. having ≥ 1 group I ($R1-5 = H$, alkyl, aryl; $R =$ substituent; $n = 0-4$; Y divalent group; $X = O, S, N(R')$; $R = H$, acyl, alkylsulfonyl, arylsulfonyl, aryl, heterocycle, $C(R6)(R7)(R8)$; $R6-8 =$ alkyl, or epoxy group of left side of I; $R6, R7$ may be H ; R may be same or different when $n = 2-4$; R' with R or 2 R may joint to form a 5-7-membered ring). The cyan coupler-containing **photosensitive** Ag halide emulsion layer contains pyrroleazo cyan coupler II ($Za = NH, CHR3$; $Zb, Zc = CR4, N$; $R1-3 =$ electron attractive group of Hammett's σ_p value ≥ 0.20 ; the σ_p sum of $R1$ and $R2$ is ≥ 0.65 ; $R4 = H$, substituent; multi $R4$ may be same or different; $X = H$, group releasable on reaction with an oxidized developer; the mol. may be a polymer when $R1-4$ or X is a divalent group). The supply of the coloring developer solution used is in the range of 20-120 mL per m² of photog. material. Images with superior cyan color reproducibility and stability can be obtained by rapid processing.
- IT 7328-97-4
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (photog. material containing)
- RN 7328-97-4 HCAPLUS
- CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



L23 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:521745 HCAPLUS Full-text

DOCUMENT NUMBER: 121:121745

TITLE: Positive-working resist composition containing quinonediazidesulfonic acid ester and polyhydric compound

INVENTOR(S): Kawada, Masaji; Kusunoki, Tetsuaki; Kashiwagi, Motofumi; Fujii, Toshiaki

PATENT ASSIGNEE(S): Nippon Zeon Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

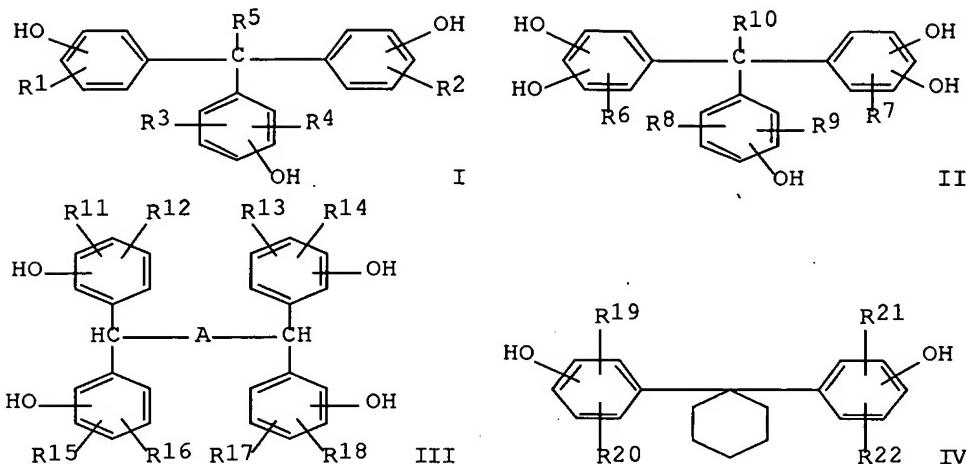
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06059447	A	19940304	JP 1992-235354	19920811
PRIORITY APPLN. INFO.:			JP 1992-235354	19920811
OTHER SOURCE(S):	MARPAT	121:121745		
GI				



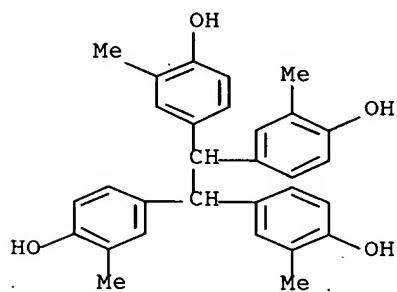
AB The resist composition comprises (1) an alkali-soluble phenolic resin, (2) a quinonediazidesulfonic acid ester of ≥ 1 polyhydric compound selected from I ($R1-4 = H, \text{halo}, OH, C1-4 \text{ alkyl}, C2-5 \text{ alkenyl}, C1-4 \text{ alkoxy}$; $R5 = H, C1-3 \text{ alkyl}, C2-5 \text{ alkenyl}, \text{aryl}$; sum of OH nos. = 3-4), II ($R6-9 = H, \text{halo}, C1-4 \text{ alkyl}, C2-5 \text{ alkenyl}, C1-4 \text{ alkoxy}$; $R10 = H, C1-3 \text{ alkyl}, C2-5 \text{ alkenyl}, \text{aryl}$, sum of OH nos. = 5; $R6 \neq R7 \neq R8 \neq R9 \neq H$), and III [$R11-18 = H, \text{halo}, OH, C1-4 \text{ alkyl}, C2-5 \text{ alkenyl}, C1-4 \text{ alkoxy}$; $A = \text{none, alkylene, alkenyl, arylene (all may be substituted)}$] as a **photosensitive** agent, and (3) a polyhydric compound IV ($R19-22 = H, \text{halo}, C1-8 \text{ alkyl}, C2-5 \text{ alkenyl}, C1-4 \text{ alkoxy, Ph-substituted alkoxy}$). The composition shows high sensitivity and resolution, and are useful for making semiconductor devices.

IT 108261-54-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with naphthoquinonediazide-sulfonyl chloride)

RN 108261-54-7 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2-methyl- (CA INDEX NAME)



L23 ANSWER 10 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:496021 HCPLUS Full-text
DOCUMENT NUMBER: 121:96021
TITLE: Positive-working photoresist composition and

INVENTOR(S): patterning method using same
 Nunomura, Masataka; Hashimoto, Michiaki; Kasuya, Kei;
 Sasaki, Mamoru

PATENT ASSIGNEE(S): Hitachi Chemical Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

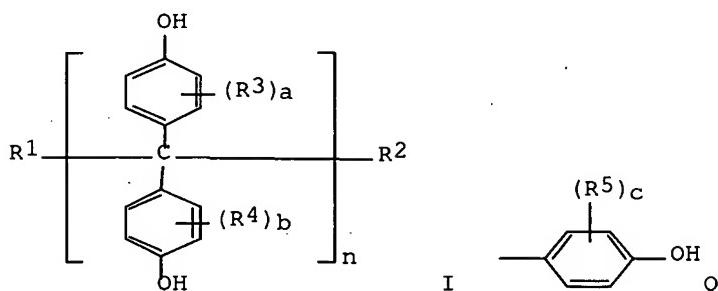
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05173326	A	19930713	JP 1991-341253	19911224
PRIORITY APPLN. INFO.:			JP 1991-341253	19911224
OTHER SOURCE(S):	MARPAT 121:96021			
GI				



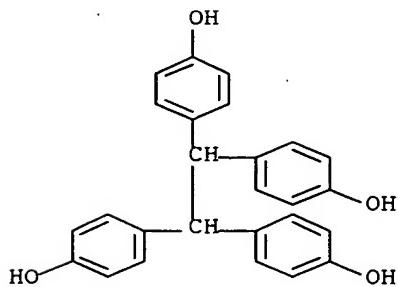
AB The title photoresist composition contains I [R1,2 = H, Me, Et; R2 = H, Q; R3-5 = H, C \leq 3 alkyl, C \leq 3 alkoxy; a, b, c = 0-3; n = 1, 2], an alkali-soluble resin, and a naphthoquinone-1,2-diazide **photosensitizer**. The title patterning method comprises coating a substrate with the above photoresist composition, pattern-wise exposing to light, and developing. This composition shows a high sensitivity and resolving power, and good heat resistance.

IT 7727-33-5

RL: USES (Uses)
 (photoresist composition from)

RN 7727-33-5 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L23 ANSWER 11 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1994:422528 HCPLUS Full-text
 DOCUMENT NUMBER: 121:22528
 TITLE: Positive-working electron-beam resist composition and patterning using same
 INVENTOR(S): Kataoka, Mutsuo; Sasayama, Norio
 PATENT ASSIGNEE(S): Toray Industries, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05127375	A	19930525	JP 1991-288959	19911105
JP 2626363	B2	19970702		

PRIORITY APPLN. INFO.: JP 1991-288959 19911105

AB The title composition contains as a resin component a novolak based on a mixture of m-cresol/p-cresol having a mol ratio 10/90-50/50 and a dimer content <10 %, as an additive a polyhydric phenol containing benzene rings 2-6 and phenolic OH groups 2-12, and as a **photosensitive** agent a polyhydric phenol containing benzene rings 2-4 and phenolic OH groups 3-6 and whose average OH groups 20-60 % are esterified by 1, 2-naphthoquinonediazido-4-sulfonic acid. The title patterning comprises the step of developing an electron-beam patternwise exposed resist with an alkali aqueous solution containing 2-diethylaminoethanol. The resist shows superior high resolution, high sensitivity, and resistance to dry etching.

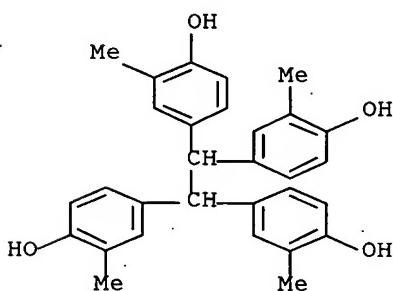
IT 108261-54-7

RL: USES (Uses)

(pos.-working electron-beam resist composition containing)

RN 108261-54-7 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2-methyl- (CA INDEX NAME)

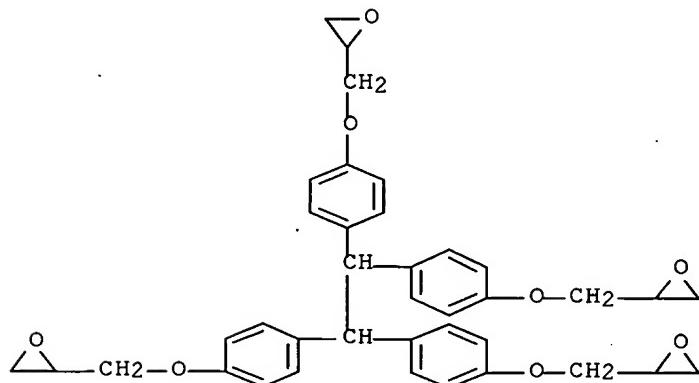


L23 ANSWER 12 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1993:49139 HCPLUS Full-text
 DOCUMENT NUMBER: 118:49139
 TITLE: Shelf life improved silver halide color photographic material for laser scanning exposures and imaging

INVENTOR(S): method using same
 Kawai, Kiyoshi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04143754	A	19920518	JP 1990-267591	19901005
PRIORITY APPLN. INFO.:			JP 1990-267591	19901005
OTHER SOURCE(S):	MARPAT 118:49139			

AB In the title color photog. material possessing ≥ 1 photocosmutive layers containing Ag halide emulsion grains spectrally sensitized by sensitizer dips with spectral sensitivity maximum at ≥ 730 nm, the **photosensitive** material contains ≥ 1 water-insol. epoxy compds. selected from I-III [R1-3 = alkyl, halo; L1, L2 = divalent aliphatic; M = O, N; A = polyvalent linking group; a, b, c = 0-4; z, y = 0-20; l = 1,2; m = 2-4]. Imaging is effected by scanning exposing at an exposure time of $\leq 10^{-4}$ s/picture element, and developing.
 IT 7328-97-4
 RL: USES (Uses)
 (additive, for scanning exposure photog. paper)
 RN 7328-97-4 HCPLUS
 CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



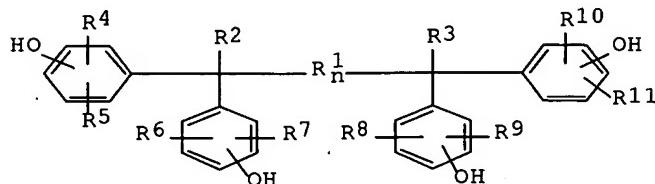
L23 ANSWER 13 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1992:501053 HCPLUS Full-text
 DOCUMENT NUMBER: 117:101053
 TITLE: Positive photoresist composition containing polyhydric phenolic compound
 INVENTOR(S): Oseko, Hiroki; Kataoka, Mutsuo
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04012356	A	19920116	JP 1990-114476	19900428
			JP 1990-114476	19900428
PRIORITY APPLN. INFO.: GI				



AB The composition contains a novolak resin, a quinonediazide compound, and phenolic compound I (R_1 = divalent hydrocarbon residue; $n = 0, 1$; $R_2, R_3 = H$, alkyl, aryl, aralkyl; R_2 and R_3 may form a ring; $R_{4-11} = H$, halo, OH, alkyl). The composition with high **photosensitivity** is useful for high-d. integrated circuit fabrication.

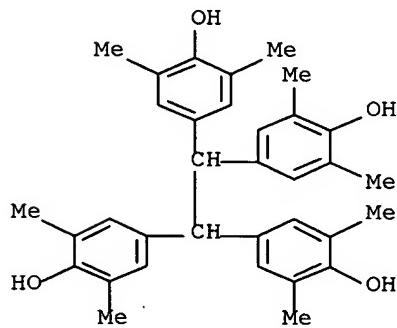
IT 107307-04-0 108261-54-7

RL: USES (Uses)

(pos. photoresists containing, for high sensitivity)

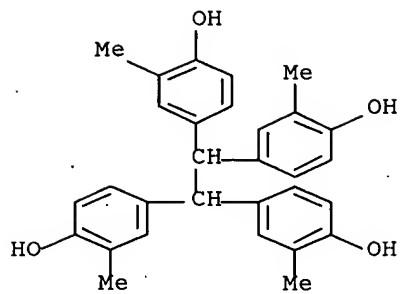
RN 107307-04-0 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2,6-dimethyl- (CA INDEX NAME)



RN 108261-54-7 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2-methyl- (CA INDEX NAME)



L23 ANSWER 14 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:13391 HCPLUS Full-text

DOCUMENT NUMBER: 116:13391

TITLE: Positive-working photoresist compositions

INVENTOR(S): Oie, Masayuki; Kawada, Masaji; Yamada, Takamasa

PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

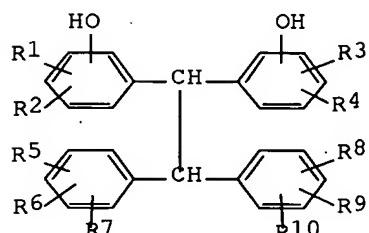
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

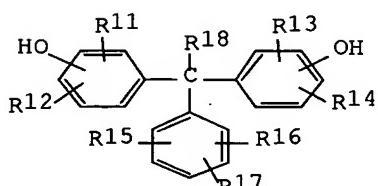
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

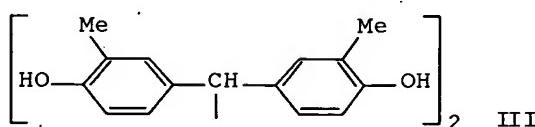
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03200254	A	19910902	JP 1989-342195	19891228
JP 08007435	B	19960129		
PRIORITY APPLN. INFO.:			JP 1989-342195	19891228
GI				



I



II



III

AB The title compns. consist of alkali-soluble phenolic resins, photosensitive quinonediazidesulfonate esters, and compds. I and/or II as sensitizers (R1-10 = H, halo, OH, C1-3-alkyl, alkenyl or alkoxy; R11-17 = H, halo, C1-3-alkyl, alkenyl or alkoxy; R18 = H, alkyl). Excellent performances as resist, especially high sensitivity and resolution of $\leq 1\text{-}\mu\text{m}$ patterns are obtained.

Thus, a composition containing m-cresol-p-cresol-HCHO novolak resin 100, 1,2-naphthoquinonediazide-5-sulfonate ester of 2,3,4,4'-tetrahydroxy benzophenone 28, and III 10 parts was applied on Si wafer. Exposure to g-line and development with 2.38% Me4NOH gave 1.13- μ m-thick pattern with 0.45- μ m line and space, with 80 mJ/cm² sensitivity. This pattern served well as mask for dry etching with CF₄ plasma.

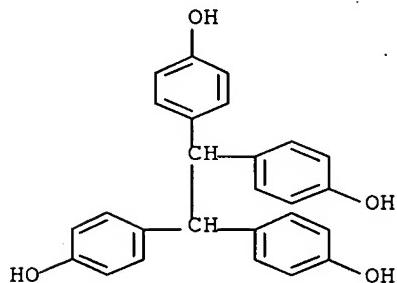
IT 7727-33-5 83159-21-1 108261-54-7

RL: USES (Uses)

(photoresists containing, pos.-working, for high resolution and sensitivity)

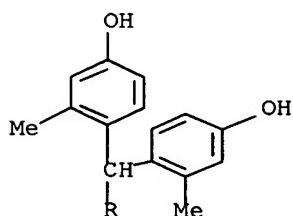
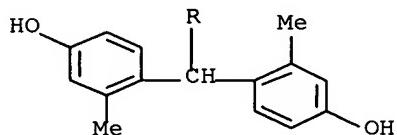
RN 7727-33-5 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



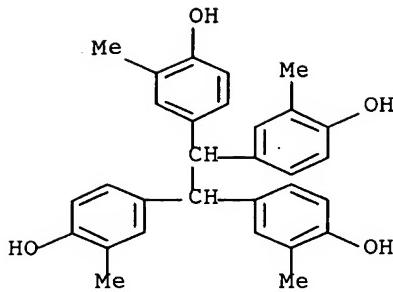
RN 83159-21-1 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[3-methyl- (9CI) (CA INDEX NAME)



RN 108261-54-7 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[2-methyl- (CA INDEX NAME)



L23 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:216569 HCAPLUS Full-text

DOCUMENT NUMBER: 104:216569

ORIGINAL REFERENCE NO.: 104:34171a, 34174a

TITLE: Water-developable, bilayer or monolayer,
negative-working, lithographic plate

INVENTOR(S): Browne, Alan Robert

PATENT ASSIGNEE(S): W. R. Grace and Co., USA

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

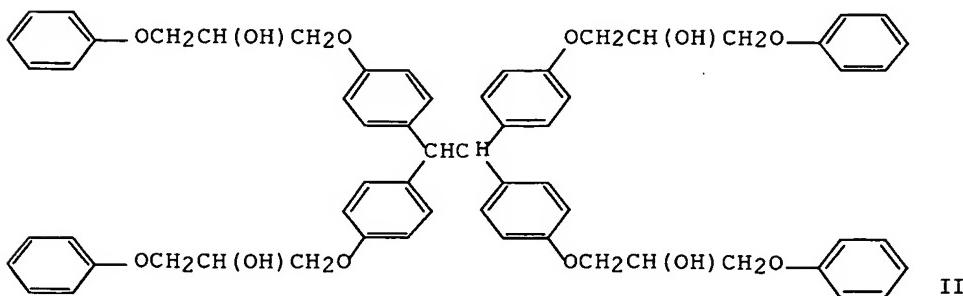
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 170041	A2	19860205	EP 1985-107724	19850621
EP 170041	A3	19880107		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4785062	A	19881115	US 1984-636419	19840731
US 4612276	A	19860916	US 1985-718670	19850513
AU 8544419	A	19860206	AU 1985-44419	19850628
AU 571707	B2	19880421		
JP 61093446	A	19860512	JP 1985-169649	19850731
PRIORITY APPLN. INFO.:			US 1984-636419	A 19840731
OTHER SOURCE(S): MARPAT 104:216569				
GI				



AB A H₂O-developable neg.-working **photosensitive** plate for the preparation of a lithog. plate is comprised of a **photosensitive** layer containing a diazo resin and a reaction product of a phenol derivative with an O-epoxyalkylated tetrakis(hydroxyphenyl)alkane (I) resin. The phenol derivative-I resin reaction product may be used as an upper layer over a lower layer of the diazo resin or as a homogeneous mixture with the diazo resin in the **photosensitive** plate. Thus, a solution of an epoxy resin (EPON-1031) 20.0, PhOH 12.0, and hexadecyltrimethylammonium bromide 3.0 g in MEK 250 mL was heated to reflux for 24 h to give a reaction product having the structure II. A solution of a diazo resin (Diazo Resin Number 4, Type L) 20 g in H₂O 500 mL was coated on a LKK silicated Al plate, dried, overcoated with a solution of II 10 g in MEK 250 mL, dried, exposed to a 1000 W Hg lamp through a neg., developed in tap H₂O, and treated with Western A.G.E. finisher, to give a lithog. plate which readily accepted ink and printed clean good-quality copies.

IT 30621-65-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with phenol derivative, in preparation of water-developable neg.-working **photosensitive** compns. for preparation of lithog. plates)

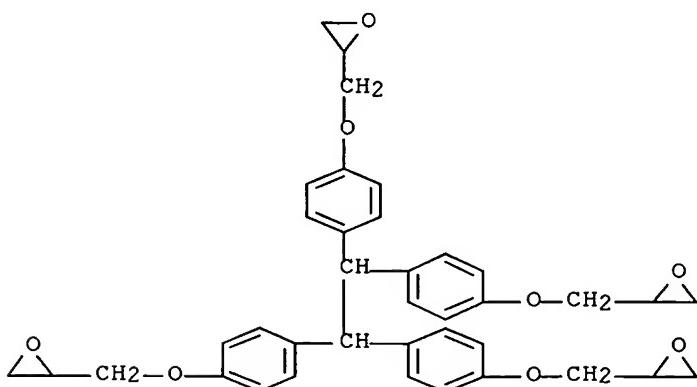
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 16 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:585026 HCPLUS Full-text

DOCUMENT NUMBER: 99:185026

ORIGINAL REFERENCE NO.: 99:28269a,28272a

TITLE: Radiation-sensitive compositions with a negative action for producing lithographic plates

INVENTOR(S): Rowe, William; Golda, Eugene; Wilkes, Alan

PATENT ASSIGNEE(S): Polychrome Corp., USA

SOURCE: Fr. Demande, 18 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2520520	A1	19830729	FR 1983-1131	19830125
US 4447512	A	19840508	US 1982-342333	19820125
JP 58174943	A	19831014	JP 1983-11230	19830125
JP 04010619	B	19920225		
CA 1243878	A1	19881101	CA 1983-420206	19830125
GB 2114765	A	19830824	GB 1983-2089	19830126
GB 2114765	B	19860521		
DE 3303814	A1	19840809	DE 1983-3303814	19830204
US 4483758	A	19841120	US 1984-574808	19840130
			US 1982-342333	A 19820125

PRIORITY APPLN. INFO.:

MARPAT 99:185026

AB Neg.-acting radiation-sensitive materials for lithog. plate preparation contain a diazo resin and a O-epoxyalkyl tetrakis(hydroxyphenyl)alkane resin or its esterification reaction product with an ethylenically unsatd. organic acid. Thus, an anodized Al support treated with an aqueous Na silicate solution was coated with a composition containing the reaction product of 2-ethoxy-4-methoxybenzophenone-5-sulfonic acid with the condensation product of formaldehyde and p-diazodiphenylamine 1, polyester DV 521 (Polychrome) 0.5, Orasol Blue GN 0.1, Me orange 0.02, ethylene dichloride 55, MeOH 22, Me cellosolve 18, DMF 2.88, and the esterification reaction product of glacial acrylic acid and pelargonic acid with Epon 1031 (1,1,2,2-tetrakis[(2,3-epoxypropyl)phenyl]ethane) 0.5 parts by weight exposed, and developed to give a lithog. plate that had press lifetime of .apprx.6 mo. and produced 110,000 good copies.

IT 30621-65-9

RL: USES (Uses)

(photosensitive composition containing, for lithog. plate preparation)

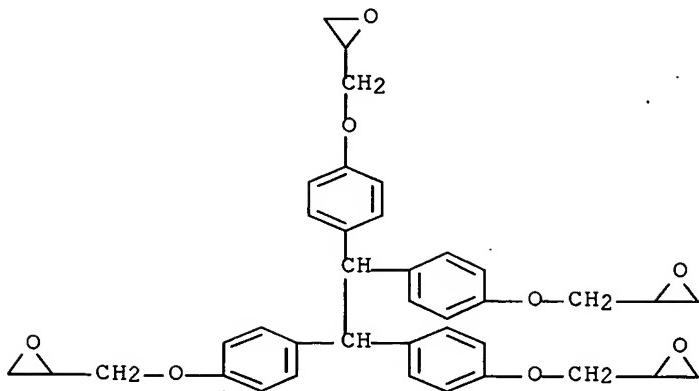
RN 30621-65-9 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 08



L23 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1983:585018 HCAPLUS Full-text
 DOCUMENT NUMBER: 99:185018
 ORIGINAL REFERENCE NO.: 99:28269a,28272a
 TITLE: Diazo **photosensitive** lithographic plate
 PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

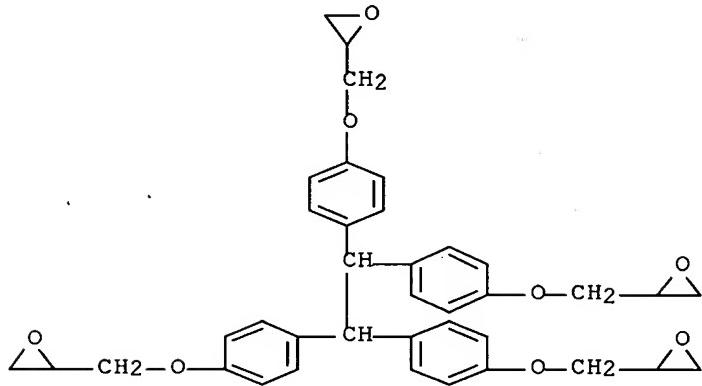
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57138641	A	19820827	JP 1981-24476	19810221
PRIORITY APPLN. INFO.:			JP 1981-24476	19810221
AB In the preparation of a durable photosensitive lithog. plate which provides good images (improved dot image reproduction), a Cr-plated Fe or steel plate support is coated with a layer of a photosensitive composition containing at least a photosensitive diazo compound. The above plate support has numerous crack holes for diffusion and crystalline Cr on the surface and is rust proof. Thus, a 0.15 mm thick Fe plate was cleaned, pretreated, electroplated for 7 min at 0°, 8V d.c., and 5 A/dm ² by using the above Fe plate as a cathode and a Pb plate as an anode in an aqueous solution containing CrO ₃ , Ba(NO ₃) ₂ , HNO ₃ (64%), NH ₄ HF ₂ , AcOH, and BaF ₂ , washed, and posttreated to give a Cr-plated Fe plate support. The above support was then coated with a photosensitive composition containing p-hydroxyphenylmethacrylamide-acrylonitrile-Et acrylate-methacrylic acid (20:35:35:10 weight ratio) copolymer (mol. weight 80,000) 5, p-diazodiphenylamine-paraformaldehyde (1:0.6 mol ratio) polymer hexafluorophosphate salt 0.5, Jurimer AC 10L 0.05, Victoria Pure Blue BOH 0.1 g and Me cellosolve 100 mL, imagewise exposed, and developed to give a lithog. plate which provided 200,000 good printed copies with a dot gain (50% dots) of +3% vs. 100,000 copies with a dot gain of +15% for a control using an Al plate support.				
IT 30621-65-9				
RL: USES (Uses) (diazo photosensitive composition containing, for lithog. plate using chromium-plated iron support)				
RN 30621-65-9	HCAPLUS			

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 18 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:480101 HCPLUS Full-text

DOCUMENT NUMBER: 99:80101

ORIGINAL REFERENCE NO.: 99:12233a,12236a

TITLE: Image forming materials

PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58076833	A	19830510	JP 1981-174420	19811102
PRIORITY APPLN. INFO.:			JP 1981-174420	19811102

AB A support is coated with a subbing layer which is soluble in (or shows an affinity to) aqueous processing solns., and coated with a vacuum-deposited metallic or metal-like layer to give an image forming material. A photosensitive resin layer may be formed on the metal layer. The image recording material can be developed with aqueous solns. Thus, a poly(ethylene terephthalate) substrate was coated with a 0.5-μm subbing layer of styrene-sodium maleate copolymer, then with a vacuum-deposited Al layer (optical d. = 2.5), and with a 2-μm thick photopolymer layer containing poly(vinyl alc.), Jurimer AT-515L, and a diazo resin (# 4, Fairmount, Ltd.) to give an photoimaging material, then the material was imagewise exposed for 30 s to a 2-kW metal halide lamp, and developed in water to give an Al neg. image with high d.

IT 30621-65-9

RL: USES (Uses)

(photoimaging material containing polymeric subbing layer and metallic layer and photopolymeric layer containing)

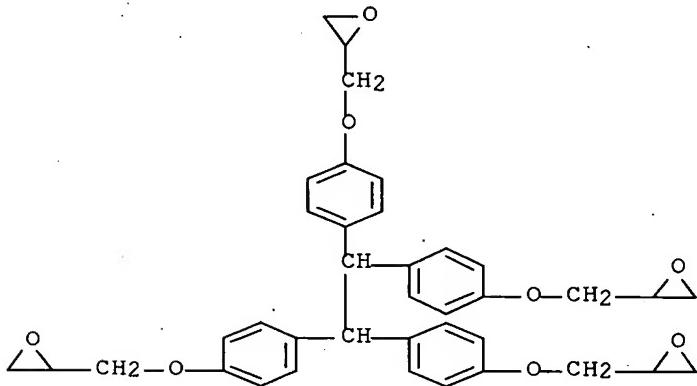
RN 30621-65-9 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:447194 HCAPLUS Full-text

DOCUMENT NUMBER: 97:47194

ORIGINAL REFERENCE NO.: 97:7842h, 7843a

TITLE: Single-stage developer and lacquer mixture for diazo printing forms

INVENTOR(S): Von Gruenberg, Gregory; Golda, Eugene; Rowe, William

PATENT ASSIGNEE(S): Polychrome Corp., USA

SOURCE: Ger. Offen., 20 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3032151	A1	19820408	DE 1980-3032151	19800826
PRIORITY APPLN. INFO.:			DE 1980-3032151	19800826

AB For a developer which removes the unexposed areas of a diazo sensitized offset plate without attacking the halftone dots and simultaneously leaves a protective lacquer on the image areas in .apprx.1 min, a homogeneous mixture of an aqueous and a resinous phase in a preferred 1-6:1 ratio is used. The aqueous phase is a 10-20% solution of a Li salt of an organic C₇-18 OH compound or acid, the other a 5-20% solution of an ink-receptive film-forming resin (epoxy, phenolic, polyurethane, or polyester) in a water-miscible solvent. The pH of the developer may be for neg.-working plates 5-10, for pos. plates ≥12. It may also contain surfactants and <5% H₃PO₄ or (CO₂H)₂ for

cleaning the Al surface. Thus, 2 solns. were prepared, A containing Li benzoate 25 and 2-capryl-1-(Et β -hydroxyprionic acid)imidazoline (sic) 100 in water 100 parts, while B consisted of MeC₅H₁₁CO 60, Epon 1004 (epoxy resin) 7, Duponal Ep surfactant) 0.5 and naphthol red 16 parts. Of 2 Al plates sensitized with the addition product of 2-hydroxy-4-methoxybenzophenone-5-sulfonic acid and a p-diazodiphenylamine- paraformaldehyde condensate in a resinous binder, exposed, developed, and mounted in an offset press, the one developed with A yielded 40,000 copies, while the one with the mixture of A + B yielded 120,000 copies.

IT 30621-65-9

RL: USES (Uses)

(photosensitive printing plates containing diazo compound and, developer-lacquer compns. for)

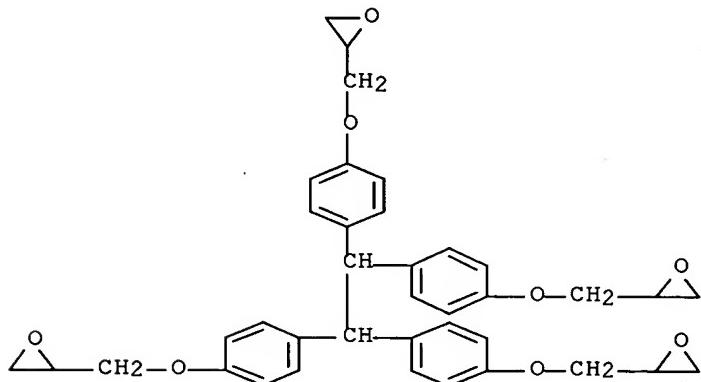
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 20 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:55929 HCPLUS Full-text

DOCUMENT NUMBER: 94:55929

ORIGINAL REFERENCE NO.: 94:8997a,9000a

TITLE: Visual aids such as montage films for lithographic printing

INVENTOR(S): Pigeon, Marcel; Szretter, Marta; Perie, Chantal

PATENT ASSIGNEE(S): Rhone-Poulenc Systemes, Fr.

SOURCE: Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 17563	A1	19801015	EP 1980-400404	19800326
EP 17563	B1	19840215		
R: AT, BE, CH, DE, GB, IT, LU, NL, SE				
FR 2452729	A1	19801024	FR 1979-7747	19790328
FR 2452729	B1	19821001		
US 4299893	A	19811110	US 1980-134326	19800326
AT 6313	T	19840315	AT 1980-400404	19800326
JP 55159434	A	19801211	JP 1980-39631	19800327
ES 490060	A1	19801216	ES 1980-490060	19800328
PRIORITY APPLN. INFO.:				
		FR 1979-7747	A	19790328
		EP 1980-400404	A	19800326

AB For such uses as montage films, color proofs, or microfiche films photopolymerizable mixts. of a diazo resin 45-60% with an epoxy resin 40-55% are used as 1-1.5 g/m² coating on a flexible polyester film, which is UV-exposed imagewise, hardened in the exposed areas, and developed by running water to remove the unexposed coating. The film carries <0.5 g/m² of a substratum which is not stained by the dyes. The **photosensitive** component is preferably an HCHO condensate of p-diazodiphenylamine or a derivative of it, precipitated as paste after the condensation using 2,5-dimethylbenzenesulfonic acid as coupling agent, and redissolved in a solvent. The epoxy resin may be a glycidyl ether of Bisphenol A and/or phenol or cresol epoxy novolak resins, including Ciba Araldite and Shell Epikote or Epon products. The epoxy resin m. ≤20-38° (Curran method) and has a viscosity >5000 cP (25°), which is raised by the addition of the diazo resin, rendering the product nonsticky. The addition of dyes should remain at <20%, that of UV absorbers <5%. Thus, a solution of Ciba epoxy novolak resin 1139 2.5 g and of Victoria Blue 0.25 in HOCH₂CH₂OMe 55.25 g was mixed with a 6% solution of the p-toluenesulfonate of p-diazodiphenylamine-HCHO condensate in the same solvent. The mixture was spin-coated at 50 rpm in 30 s on a gelatin-subbed polyester film, dried 5 min at 40°, then 5 min at 85°, and exposed through a neg.transparency using a 2-kW/Nuarc lamp at 60 cm for 3 min. Water jet development was supplemented by light wiping with a wad. The pos. blue image could serve as montage film.

IT 30621-65-9

RL: USES (Uses)

(polyester support treatment by solution containing, for
photosensitive assembly preparation for montage film production)

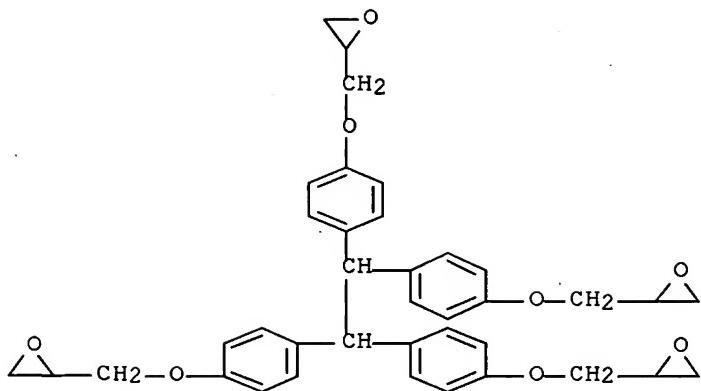
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 21 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:416994 HCPLUS Full-text

DOCUMENT NUMBER: 93:16994

ORIGINAL REFERENCE NO.: 93:2787a,2790a

TITLE: Energy-sensitive multilayer film for producing images

INVENTOR(S): Shimazu, Kenichi; Nakayama, Takao

PATENT ASSIGNEE(S): Polychrome Corp., USA

SOURCE: Ger. Offen., 36 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2919137	A1	19791115	DE 1979-2919137	19790511
US 4347300	A	19820831	US 1978-904840	19780511
PRIORITY APPLN. INFO.:			US 1978-904840	A 19780511
			US 1977-802851	A2 19770602

AB Energy-sensitive multilayer films for the production of both neg. and pos. images at the same time and at low cost are composed of an upper support layer, a **photosensitive** gas-forming diazo compound-containing layer, an image-forming layer, an adhesive layer, and a lower support layer. The image-forming layer and/or the adhesive layer contain a **photosensitive**, photohardenable, or photocrosslinkable substance. Also, the image-forming and adhesive layer may be combined with one another. Thus, a 25 μm transparent, polyester film was coated with a composition contg. Epon 5, p-diazodimethylaniline - 1/2 ZnCl₂ 15 g, ethylene dichloride 80, MeOH 25, Mecellosolve 25, and DMF 25 mL to give the **photosensitive** layer. This layer was then overcoated with a composition containing Versamid 754 20, carbon black 5, Fe-naphthenate 5 g, PhMe 40, and 2-PrOH 40 mL (image-forming layer). A 2nd film 76 μm (Mylar) was coated with a composition containing DV 530 (photopolymerizable oligomer) 5, Siligrip SR-573 (silicone resin) 5, Michler's ketone 0.25, and benzophenone 0.25 g. The 2 films were laminated together, imagewise exposed, and delaminated to give a neg. image on the 76 μm film and a pos. image on the 25 μm polyester film.

IT 30621-65-9

RL: USES (Uses)

(photoimaging compns. containing, multilayer, for production of pos. and

neg.

images)

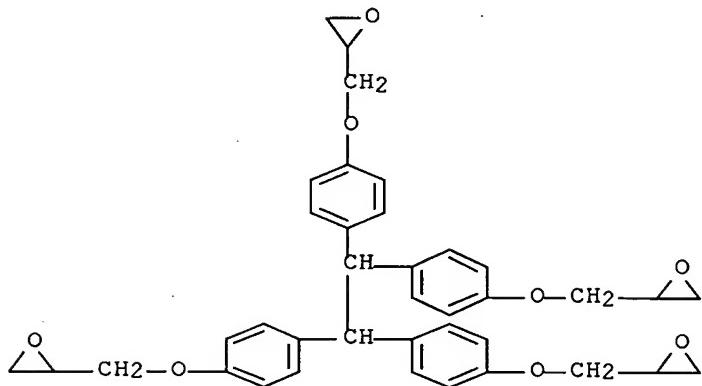
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 22 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:207146 HCPLUS Full-text

DOCUMENT NUMBER: 92:207146

ORIGINAL REFERENCE NO.: 92:33432h,33433a

TITLE: Energy-sensitive multilayer film for producing images

INVENTOR(S): Shimazu, Kenichi; Nakayama, Takao

PATENT ASSIGNEE(S): Polychrome Corp., USA

SOURCE: Ger. Offen., 36 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2919138	A1	19791115	DE 1979-2919138	19790511
GB 2021276	A	19791128	GB 1979-16386	19790511
JP 55011280	A	19800126	JP 1979-57940	19790511

PRIORITY APPLN. INFO.: US 1978-904839 A 19780511

AB Energy-sensitive multilayer films for the reproduction of both neg. and pos. images at the same time are described. The films consist of an upper support, an energy-sensitive layer, an imaging layer, an adhesive layer, and a lower support. The imaging layer and the adhesive layer may be combined. Thus, a 76 μ transparent polyester film was coated with a composition containing Epon 5, p-diazodimethylaniline-1/2 ZnCl₂ 15g, ethylene dichloride 80, MeOH 25, Me cellosolve 25, DMF 25 mL to give a **photosensitive** layer. Upon this layer was then coated a composition containing Versamid 754 20, carbon black 5, Fe

naphthenate 5, PhMe 40, and iso-PrOH 40 mL to give an imaging layer. Upon a 2nd 12.7 μm transparent polyester film (Mylar) was coated a composition containing Covinax 5, Cyna (surfactant) 0.5, and H₂O 0.5 g to give an adhesive layer. These films were then laminated together to give a multilayer film which was then imagewise exposed and subsequently delaminated to give a neg. image on the 12.7 μm polyester film and a pos. image on the 76 μm polyester film. When used in an overhead projector, the pos. gave a clear image.

IT 30621-65-9

RL: USES (Uses)

(photoimaging compns. containing, multilayer, for pos. and neg. image reproduction)

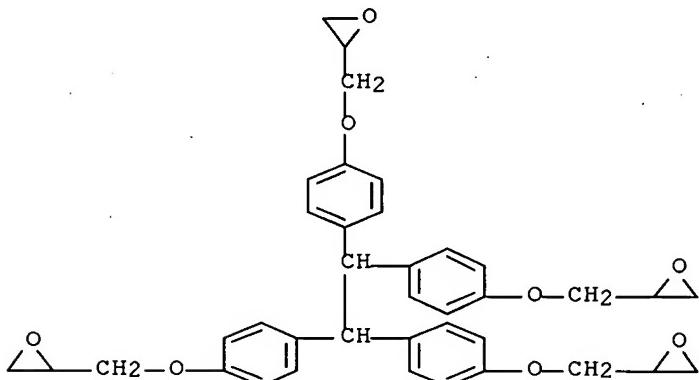
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 23 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1980:207124 HCPLUS Full-text
 DOCUMENT NUMBER: 92:207124
 ORIGINAL REFERENCE NO.: 92:33425a, 33428a
 TITLE: Photosensitive multilayer film and printing plates
 INVENTOR(S): Shimazu, Kenichi; Nakayama, Takao
 PATENT ASSIGNEE(S): Polychrome Corp., USA
 SOURCE: Ger. Offen., 33 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2919136	A1	19791115	DE 1979-2919136	19790511
GB 2020836	A	19791121	GB 1979-16283	19790510
JP 55011282	A	19800126	JP 1979-57942	19790511

PRIORITY APPLN. INFO.:

US 1978-904841

A 19780511

AB A multilayer film for production of a pos. as well as a neg. of a transparent image consists of the following layers: (1) a flexible transparent gas-impermeable upper support layer; (2) a 1st **photosensitive** layer thereon containing a diazonium compound (and optionally a small amount of resin) which decomp. and evolves gas upon UV irradiation; (3) a resin-containing image-forming layer thereon which is strippable according to the image formation by a shearing force; (4) a 2nd **photosensitive** layer thereon containing a H₂O-soluble diazonium polymer which does not evolve gas and which becomes insol. upon UV-irradiation; (5) and a hydrophilic lower support film. UV exposure of the multilayer film through a transparent original on the upper side causes a spontaneous evolution of gas in the 1st **photosensitive** layer so that in the exposed regions an outward-directed force is exerted on the upper support and the image-forming layer and image-forming bubbles are visible through the upper support. Light reaching the 2nd **photosensitive** layer causes the diazonium polymer to become insol. in the exposed regions and subsequent separation of the upper and lower parts by peeling causes a cleavage of the image-forming layer from the 2nd **photosensitive** layer. Thereby a neg. of the transparent original in the form of a lithog. plate is produced from the lower support on which the exposed 2nd **photosensitive** layer adheres, and simultaneously a pos. of the original is formed from the upper support on which the unexposed 1st **photosensitive** layer adheres. Thus, a **photosensitive** substance composed of Epon 5, p-(dimethylamino)benzenediazonium chloride 0.5ZnCl₂ 15 g, ethylene chloride 80, MeOH 25, methyl cellosolve 25, and DMF 25 mL was coated on a transparent polyester film to a thickness of 76 μm, and on this was coated an image-forming layer composed of Versamide 754 20, carbon black 5 g, PhMe 40, iso-PROH 40 mL, and Fe naphthenate 5 g. On an Al film was coated a H₂O-soluble **photosensitive** layer containing the condensation product of a p-phenylaminobenzenediazonium salt with paraformaldehyde and on the **photosensitive** layer was spread 10 g of a silicone adhesive (Siliplast SR 573) dissolved in 10 g PhMe. These 2 coated films were then laminated together so that the image forming layer and the adhesive layer were in contact. The polyester side of the laminate was exposed to actinic light from a C arc lamp through a transparent original for 30 s, and 2 component films were separated to give a neg. on the Al film and a pos. on the polyester film. The neg.-containing Al film was used on a printing press to give excellent reproductions.

IT 30621-65-9

RL: USES (Uses)

(photosensitive multilayer film containing, for lithog. plate manufacture)

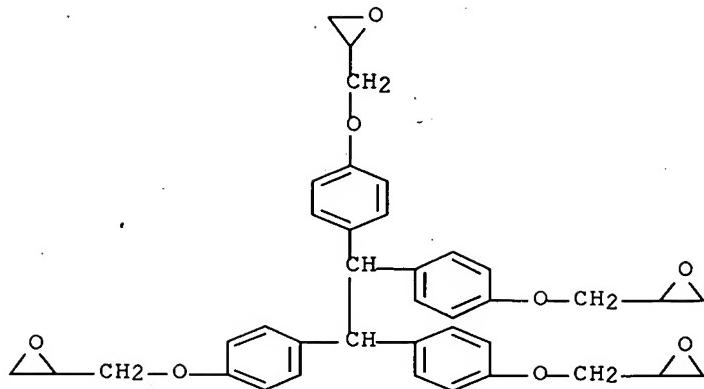
RN 30621-65-9 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 24 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:466241 HCPLUS Full-text

DOCUMENT NUMBER: 91:66241

ORIGINAL REFERENCE NO.: 91:10595a,10598a

TITLE: New photodelamination imaging system and its response to xenon flash lamp

AUTHOR(S): Nakayama, Takao; Shimazu, Kenichi; Inoue, Eiichi

CORPORATE SOURCE: Polychrome Corp., Yonkers, NY, 10702, USA

SOURCE: Nippon Shashin Gakkaishi (1979), 42(1), 25-35

CODEN: NSGKAP; ISSN: 0369-5662

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB A new photodelamination imaging system for use with Xe flash lamps is described. The imaging system is comprised of either a diazo **photosensitive** layer or its combination with an imaging layer sandwiched between 2 supports. For optimum results the binder for the **photosensitive** and imaging layers should have low a N permeation constant and sharp softening temperature range, maximizing the effect of flash exposure which causes photodissocn. of the diazo sensitizers and a sharp rise in temperature in the exposed areas. The responses of the imaging system to Xe flash lamps and its photog. and storage characteristics were also investigated.

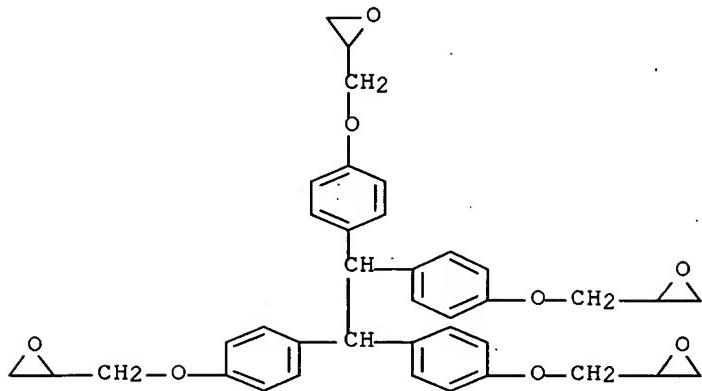
IT 7328-97-4

RL: USES (Uses)

(**photosensitive** compns. containing diazo compound and, for photodelamination photoimaging materials)

RN 7328-97-4 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



L23 ANSWER 25 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:64488 HCPLUS Full-text

DOCUMENT NUMBER: 90:64488

ORIGINAL REFERENCE NO.: 90:10127a,10130a

TITLE: Water developable lithographic printing plate having dual **photosensitive** layering

INVENTOR(S): Golda, Eugene; Wilkes, Alan Leonard; Chu, Simon Long

PATENT ASSIGNEE(S): Polychrome Corp., USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4104072	A	19780801	US 1977-798531	19770519
NO 7704517	A	19781121	NO 1977-4517	19771230
NL 7801625	A	19781121	NL 1978-1625	19780213
DK 7800742	A	19781120	DK 1978-742	19780220
JP 53145706	A	19781219	JP 1978-43764	19780413
JP 61051311	B	19861108		
CA 1103089	A1	19810616	CA 1978-302465	19780502
AU 7835967	A	19791115	AU 1978-35967	19780510
AU 519958	B2	19820107		
GB 1604170	A	19811202	GB 1978-19119	19780512
SE 7805737	A	19781120	SE 1978-5737	19780518
DE 2821777	A1	19781130	DE 1978-2821777	19780518
FR 2391489	A1	19781215	FR 1978-14931	19780519
FR 2391489	B1	19850628		

PRIORITY APPLN. INFO.: US 1977-798531 A 19770519

AB Lithog. printing plates, which can be developed by using ordinary tap water, are composed of a metal support having coated thereon a layer of a water-soluble, **photosensitive** substance and a layer of a water-insol., ink-receptive, **photosensitive** substance. Both layers must be either both pos. working or both neg. working. Upon image exposure through a mask, the exposed areas of the upper **photosensitive** composition are rendered either water permeable or water impermeable and the unexposed areas are either water impermeable or water permeable as opposed to the exposed areas. Thus, a

grained 3003 Al plate was dip-coated with a water-soluble, neg.-working composition containing a paraformaldehyde-p-diazodiphenylamine ZnCl₂ salt reaction product from a 2% solution to give a dry coating weight of 40 mg/ft². The plate was then coated with a composition containing a water-insol. diazo resin 1, Epon 1031 2, and a basic blue dye 0.1 part in Me cellosolve to give a dry coating weight of 70 mg/ft². After a 2 min exposure, the plate was developed with ordinary tap water.

IT 30621-65-9

RL: USES (Uses)

(photosensitive compns. containing, for water-developable lithog. plate fabrication)

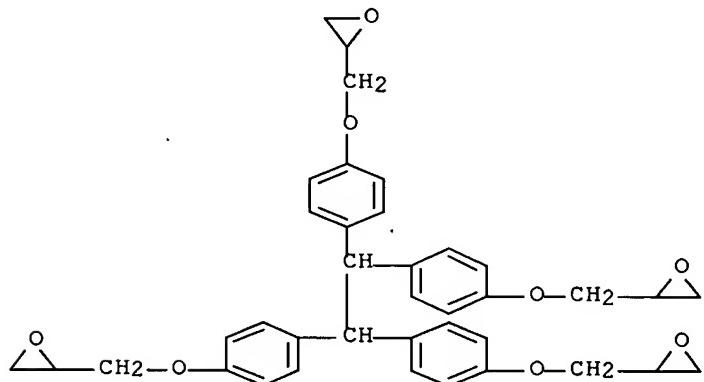
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 26 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:91022 HCPLUS Full-text

DOCUMENT NUMBER: 86:91022

ORIGINAL REFERENCE NO.: 86:14397a,14400a

TITLE: Hydrophilic mixed polymers

INVENTOR(S): Sato, Bunya

PATENT ASSIGNEE(S): Kyowa Gas Chemical Industry Co., Ltd., Japan

SOURCE: Ger. Offen., 25 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2626706	A1	19761230	DE 1976-2626706	19760615
JP 51148788	A	19761221	JP 1975-72716	19750617
JP 59049243	B	19841201		

CA 1091390	A1	19801209	CA 1976-254537	19760610
DK 7602686	A	19761218	DK 1976-2686	19760616
SE 7606855	A	19761218	SE 1976-6855	19760616
GB 1546822	A	19790419	GB 1976-25000	19760616
NL 7606561	A	19761221	NL 1976-6561	19760617
FR 2316263	A1	19770128	FR 1976-18473	19760617
FR 2316263	B1	19800905		

PRIORITY APPLN. INFO.:

JP 1975-72716 A 19750617

AB Acrylic polymers are combined with polyisocyanates, polyurethanes, or epoxy resins to provide hydrophilic coatings or materials for transfer or offset printing. Thus, to a solution of 100 g 40:50:10 dimethylaminoethyl methacrylate-lauryl methacrylate-methacrylic acid copolymer [61842-08-8] in 400 g BuOAc was added 14 g Coronate L [39278-79-0] (polyisocyanate) and the mixture used as a ship coating which resisted marine growths.

IT 30621-65-9

RL: USES (Uses)

(coating compns., containing acrylic polymers, hydrophilic)

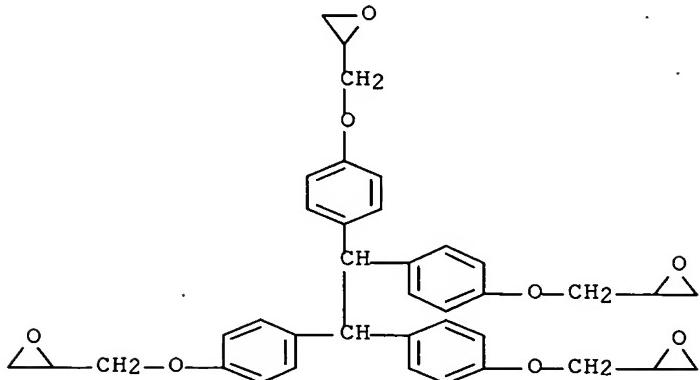
RN 30621-65-9 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L23 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1975:37332 HCAPLUS Full-text
 DOCUMENT NUMBER: 82:37332
 ORIGINAL REFERENCE NO.: 82:5877a,5880a
 TITLE: Polymerizable compositions
 INVENTOR(S): Green, George Edward
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G.
 SOURCE: Ger. Offen., 25 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2410238	A1	19740912	DE 1974-2410238	19740304
GB 1443822	A	19760728	GB 1973-10796	19730306
CA 1012682	A1	19770621	CA 1974-190797	19740123
US 3936366	A	19760203	US 1974-446990	19740228
CH 599258	A5	19780531	CH 1974-2935	19740301
NL 7402905	A	19740910	NL 1974-2905	19740304
FR 2220563	A1	19741004	FR 1974-7386	19740305
JP 49119983	A	19741115	JP 1974-26128	19740306
JP 58030326	B	19830628		

PRIORITY APPLN. INFO.: GB 1973-10796 A 19730306

AB Photopolymerizable compns. containing a compound with ≥ 3 , 3-sorbylox-y-2-hydroxypropoxy groups/mol. and a **photosensitizer**, such as Michler's ketone, for use in preparing offset printing plates are described. Thus, a solution containing Epoxy Novolak I 85, sorbic acid 56, Et3N 1.4, hydroquinone 0.14, and PhMe 400 g was refluxed for 5 hr and PhMe 562 and Me2CO 321 g were added to give a 10% solution of the polysorbate. To this solution was then added Michler's ketone 6.75 g, and the solution was then coated on a Cu-coated laminate to give a dry thickness of 10 μm , exposed through a negative for 30 sec at 234 nm, and developed with a Me2CO-PhMe (1:3) mixture to give a good relief image.

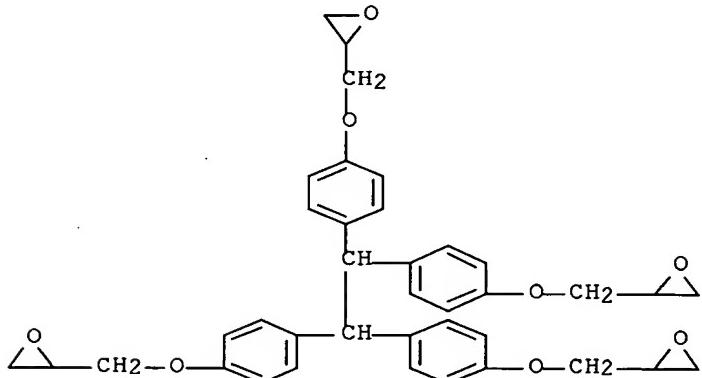
IT 7328-97-4

RL: USES (Uses)

(sorbic acid-modified, photopolymerizable compns. containing **photosensitizers** and, for printing plates)

RN 7328-97-4 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



L23 ANSWER 28 OF 28 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1974:544281 HCPLUS Full-text
 DOCUMENT NUMBER: 81:144281
 ORIGINAL REFERENCE NO.: 81:22517a,22520a
 TITLE: Presensitized lithographic plates with silicone rubber top coating
 INVENTOR(S): Kondo, Asaji; Kishimoto, Shinzo; Yazawa, Kenichiro; Miyano, Shizuo

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.
 SOURCE: Ger. Offen., 36 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2350211	A1	19740418	DE 1973-2350211	19731005
JP 49057903	A	19740605	JP 1972-100082	19721005
JP 56012860	B	19810325		
GB 1442374	A	19760714	GB 1973-46490	19731004

PRIORITY APPLN. INFO.: JP 1972-100082 A 19721005

AB Pos. or neg. working plates, which require no aqueous fountain solution during their use, carry on their diazo-sensitized image-forming coating a 2-5 μ top layer of silicone rubber. This layer can be rendered fingerprint-resistant in 30-60 sec at 100-120° if it is composed of 2-types of rubber in the ratio 1:0.5-10. The 1st type is derived from siloxanes with terminal alcohol, Ac, or oxime groups, while the 2nd, with terminal vinyl groups, is addition polymerizable with a Pt or Pd catalyst. Thus, a silicone primer was applied to an Al plate with 30 mg/0.09 m² of a 2:1 mixture of a condensate of o-quinone diazide sulfonyl chloride and pyrogallol with Epon 1031 resin as binder. For the 3 μ top coating the metal catalyst was added to the C7H16 solution of a com. product of the 1st type of rubber, then the 2nd type added, and the coating dried for 1 min at 100°. The plate, exposed through a screened negative and developed in a BuOA-PrOH-H₂O (2:7:1) mixture, yielded 10,000 copies.

IT 30621-65-9

RL: USES (Uses)

(binder, for pos. or neg. working presensitized lithog. plates)

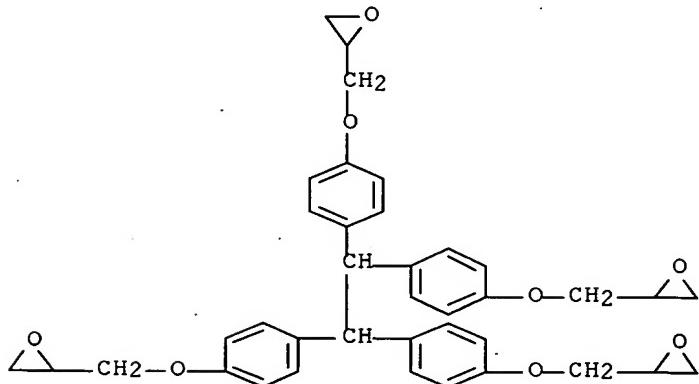
RN 30621-65-9 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

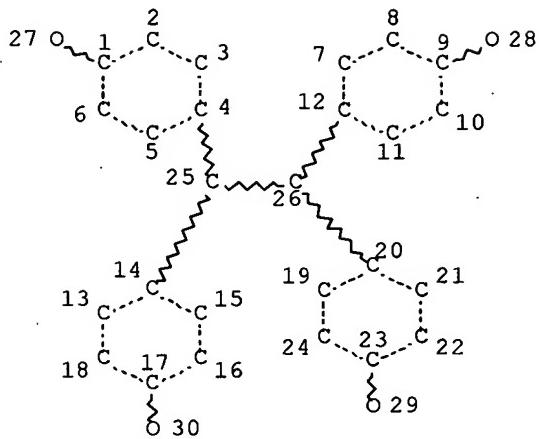
CRN 7328-97-4

CMF C38 H38 O8



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L1 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

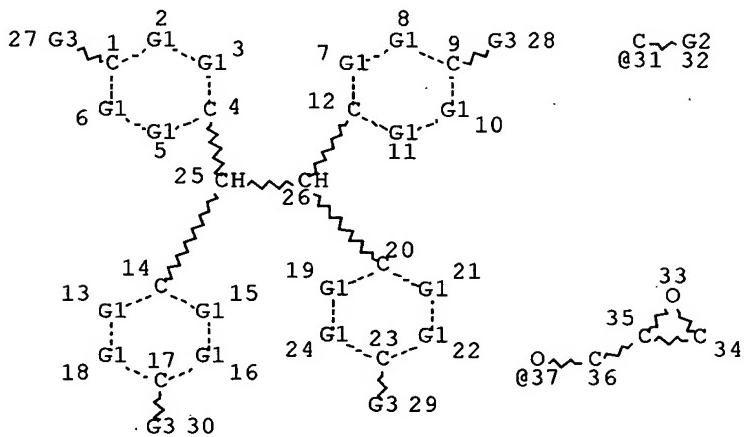
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

L3 691 SEA FILE=REGISTRY SSS FUL L1

L6 STR



VAR G1=CH/31

VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/X

VAR G3=OH/37

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 37

STEREO ATTRIBUTES: NONE

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L8 26 SEA FILE=REGISTRY SUB=L3 SSS FUL L6 NOT L7
L9 360 SEA FILE=HCAPLUS ABB=ON PLU=ON L8
L10 809777 SEA FILE=HCAPLUS ABB=ON PLU=ON (RESINS/CV OR RESIN/CV OR
RESINIFICATION/CV OR RESINOLS/CV OR GUM/CV OR "GUM RESINS"/CV
OR GUMS/CV OR "GUMS (RESINOUS)"/CV OR "NATURAL RESINS"/CV OR
"RESINOUS GUMS"/CV) OR RESIN
L12 122999 SEA FILE=HCAPLUS ABB=ON PLU=ON LIGHT-SENSITIVE MATERIALS/CV
OR PHOTOSENS? OR LIGHT (2A) SENSIT?
L13 98 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)L10
L14 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND L13
L22 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L12
L23 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 NOT L14
L24 679 SEA FILE=HCAPLUS ABB=ON PLU=ON ("TANAKA RYUTARO"/AU OR
"TANAKA RYUTAROU"/AU) OR TANAKA R/AU OR TANAKA R ?/AU
L25 253 SEA FILE=HCAPLUS ABB=ON PLU=ON "NAKANISHI MASATAKA"/AU OR
NAKANISHI M/AU OR NAKANISHI M ?/AU
L26 295 SEA FILE=HCAPLUS ABB=ON PLU=ON "AKATSUKA Y"/AU OR "AKATSUKA
YASUMASA"/AU
L27 56 SEA FILE=HCAPLUS ABB=ON PLU=ON "KOYANAGI H"/AU OR "KOYANAGI
HIRO"/AU OR "KOYANAGI HIROO"/AU
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L31 10 SEA FILE=HCAPLUS ABB=ON PLU=ON (L24 OR L25 OR L26 OR L27)
AND L9
L32 665 SEA FILE=REGISTRY ABB=ON PLU=ON L3 NOT L8
L33 403 SEA FILE=HCAPLUS ABB=ON PLU=ON L32
L34 8 SEA FILE=HCAPLUS ABB=ON PLU=ON (L24 OR L25 OR L26 OR L27)
AND L33
L35 45 SEA FILE=HCAPLUS ABB=ON PLU=ON (L28 OR L29 OR L30 OR L31 OR
L34) NOT (L14 OR L23)

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L35 ANSWER 1 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1442764 HCAPLUS Full-text
DOCUMENT NUMBER: 148:66148
TITLE: Photosensitive polymer compositions with high
sensitivity and good thermal stability
INVENTOR(S): Oshimi, Katsuhiko; Tanaka, Ryutaro; Nakanishi,
Masataka; Kurihashi, Toru
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 JP 2007328028 A 20071220 JP 2006-157443 20060606
 PRIORITY APPLN. INFO.: JP 2006-157443 20060606
 AB The compns., especially useful for printed circuit boards, contain (A) aqueous alkali solution-soluble polymers, (B) crosslinkers, (C) photopolymn. initiators, and (D) crystalline epoxy resins of $C_6H_4-m(OGly)Rm[CH_2-p-C_6H_4-p-C_6H_4CH_2C_6H_4-m(OGly)Rm]nH$ ($n = 1.0-2.0$; $R = H, C_{1-4}$ alkyl, Ph; $k = 1-4$; Gly = glycidyl) as curing agents. The crystalline epoxy resins may show softening point or m.p. $75-180^\circ$. The aqueous alkali solution-soluble polymers may be prepared by reacting compds. having ≥ 2 epoxy groups with monocarboxylic acids having ethylenic unsatn., then with polybasic acid anhydrides.

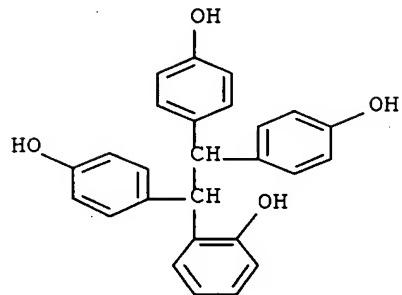
L35 ANSWER 2 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:1240281 HCAPLUS Full-text
 DOCUMENT NUMBER: 147:494041
 TITLE: Tetrakisphenolethane-based epoxy resins with high softening point, their compositions, their crystal-dispersed materials, their photoresists, and printed circuit boards with them
 INVENTOR(S): Nakanishi, Masataka; Oshimi, Katsuhiko; Sunaga, Takao
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan; Nippon Kayaku Fukuyama Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 35pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007284582	A	20071101	JP 2006-114278	20060418
PRIORITY APPLN. INFO.:			JP 2006-114278	20060418

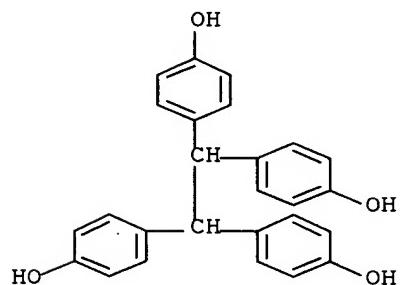
AB Title epoxy resins with softening point $80-120^\circ$ comprise (1a) $(Q12CH)_2$, (1b) 0.3-1.5 molar ratio $CH_2CH(OH)CH_2$, and (1c) $Q12CHCHQ22$ at 1a/(1a + 1c) molar ratio 0.9-1.0 [$Q1 = R_n$ -substituted 4-O-C₆H₄; $Q2 = R_n$ -substituted 2-O-C₆H₄; $R = C_{1,3,4}$ alkyl, Ph; $n = 0-3$; phenolic O of (1a) and (1c) bond via (1b) each other or bond to glycidyl group]. The compns. contain the epoxy resins and crosslinking agents. The crystal-dispersed materials are manufactured by sequentially or all together mixing of the epoxy resins with solvents and/or ethylenically unsatd. group-containing compds. The photoresists contains the crystal-dispersed materials containing ethylenically unsatd. group-containing compds. and photopolymn. initiators. The printed circuit boards have layers manufactured from their photoresists. The crystalline epoxy resins manufactured by without crystallization show high storage stability and good heat resistance and dispersibility.

IT 953809-23-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (novolak-crosslinked; storage-stable crystalline tetrakisphenolethane-based epoxy resin moldings and photoresists for printed circuit boards)
 RN 953809-23-9 HCAPLUS
 CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis-, polymer with 2-(chloromethyl)oxirane and 2-[1,2,2-tris(4-hydroxyphenyl)ethyl]phenol (CA INDEX NAME)

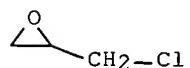
CM 1

CRN 868170-18-7
CMF C26 H22 O4

CM 2

CRN 7727-33-5
CMF C26 H22 O4

CM 3

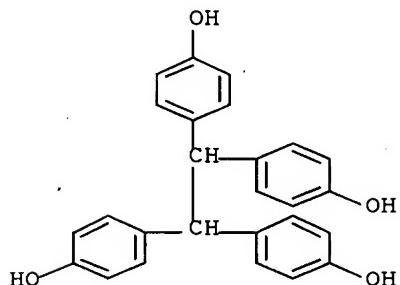
CRN 106-89-8
CMF C3 H5 Cl O

IT 31425-02-2P, Epichlorohydrin-TEP-DF copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (storage-stable crystalline tetrakisphenolethane-based epoxy resin moldings and photoresists for printed circuit boards)
 RN 31425-02-2 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis-, polymer with 2-(chloromethyl)oxirane (CA INDEX NAME)

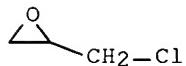
CM 1

CRN 7727-33-5
CMF C26 H22 O4



CM 2

CRN 106-89-8
CMF C3 H5 Cl O



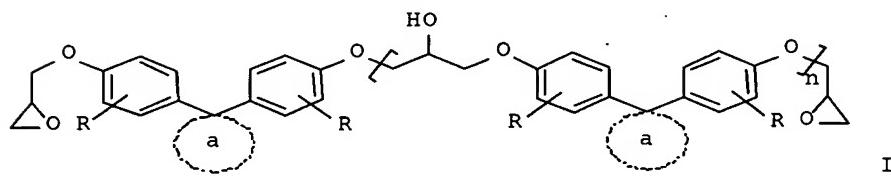
L35 ANSWER 3 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:1110629 HCPLUS Full-text
 DOCUMENT NUMBER: 147:428075
 TITLE: Epoxy resins, their epoxy resin compositions with low viscosity, and their cured products with heat resistance
 INVENTOR(S): Akatsuka, Yasumasa; Nakanishi, Masataka; Sunaga, Takao
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007254581	A	20071004	JP 2006-80336	20060323
PRIORITY APPLN. INFO.:			JP 2006-80336	20060323
AB Title resins contain main components selected from RnC6H4-nQ2, RnC6H4-nQ12, and RnC6H4-nQ22 [R = H or C1-4 alkyl; Q = 2-glycidoxymethoxy; Q1 = OCH2CH(CH3)OX; Q2 = OCH(CH3)CH2OX with X = glycidyl; n = 1-3 integer]. A				

composition containing an epoxy resin (from epichlorohydrin and resorcinol/ethylene oxide adduct) with viscosity 442 mPa·s, Kayahard MCD, and imidazole was molded and cured to form a test piece with glass-transition temperature of 168°.

L35 ANSWER 4 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:1110614 HCAPLUS Full-text
 DOCUMENT NUMBER: 147:428356
 TITLE: Epoxy resin compositions with good moisture resistance and toughness
 INVENTOR(S): Nakanishi, Masataka; Oshimi, Katsuhiko; Akatsuka, Yasumasa; Sunaga, Takao
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007254579	A	20071004	JP 2006-80316	20060323
PRIORITY APPLN. INFO.:			JP 2006-80316	20060323
GI				



AB Title compns. comprise epoxy resins I, wherein R = H or phenyl; ring a = (un)substituted C3-17 cycloalkyl; and n = 0.5-20. Thus, 134 parts bisphenol Z and 370 parts epichlorohydrin were treated in the presence of NaOH to give an epoxy resin with epoxy equivalent 196 g/equiv, 98 parts of which was treated with 33.5 parts bisphenol Z to give an epoxy resin with epoxy equivalent 485/gequivalent and m.p. 106°, 48.6 parts of which was mixed with 10.5 parts a phenolic novolak resin and 0.7 parts Ph3P, and cured at 140° for 6 h and 170° for 2 h to give a test piece, showing moisture absorption 1.9% and fracture toughness 49 MPa.

L35 ANSWER 5 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:759254 HCAPLUS Full-text
 DOCUMENT NUMBER: 147:177047
 TITLE: Photosensitive compositions containing epoxy resins, and sheets, substrates, and articles formed from them
 INVENTOR(S): Nakanishi, Masataka; Oshimi, Katsuhiko; Tanaka,

Ryutaro; Kurihashi, Toru

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 26pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007178937	A	20070712	JP 2005-380236	20051228
PRIORITY APPLN. INFO.:			JP 2005-380236	20051228

AB The compns. contain epoxy resins having frameworks bearing bisphenol- or biphenol-derived OCH(OH)O bonds, and ethylenic unsatd. compds. Alternatively, the compns. contain alkali-soluble resins, crosslinking agents, photopolymn. initiators, and the epoxy resins. The compns. show high storage and heat stability and high tackiness and are useful for forming resists, solder resists, elec insulators for elec. circuits, photosensitive optical waveguides, etc.

L35 ANSWER 6 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:463636 HCPLUS Full-text
 DOCUMENT NUMBER: 146:443130
 TITLE: Thermosetting resin compositions with good storage stability, flexibility, and bending, flame, and heat resistance
 INVENTOR(S): Tanaka, Ryutaro; Uchida, Makoto; Koyanagi, Hiroo
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 28pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007046405	A1	20070426	WO 2006-JP320724	20061018
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRIORITY APPLN. INFO.:			JP 2005-306517	A 20051021
AB Title thermosetting resin compns. comprise (A) a polyimide resin having a phenolic hydroxyl group, preferably produced from an aminophenol, a diamino compound, and a tetrabasic acid dianhydride and (B) an epoxy resin. Thus, 3,3',4,4'-diphenylsulfonetetracarboxylic dianhydride 1.02, 3,3'-amino-4,4'-dihydroxydiphenyl ether 0.60, and 4,4'-diaminodiphenyl ether 0.40 mol were				

polymerized to give 30%-solids a phenolic hydroxy-containing polyimide solution with weight average mol. weight 78,000, 560 parts of which was mixed with 100 parts NC 3000H (epoxy resin) and 2 parts 2-phenyl-4,5-dihydroxymethylimidazole, applied on a polyethylene terephthalate film, heated at 180° for 1 h, and removed the film to give a test piece, showing good flexibility, flame resistance, and storage stability (composition).

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 7 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:329657 HCAPLUS Full-text
 DOCUMENT NUMBER: 146:347458
 TITLE: Photosensitive resin composition and cured object obtained therefrom
 INVENTOR(S): Tanaka, Ryutaro; Kurihashi, Toru; Akatsuka, Yasumasa
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 41pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007032326	A1	20070322	WO 2006-JP318017	20060912
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: JP 2005-267777 A 20050915
 AB The resin composition comprises a photosensitive resin (A) soluble in an aqueous alkali solution, a reactive crosslinking agent (B), a photopolymer initiator (C), and a hardener (D), wherein the hardener (D) is a 4,4'-bisphenol F epoxy resin. The resin composition has excellent photosensitivity, flexing characteristics, adhesion, pencil hardness, solvent resistance, acid resistance, heat resistance, resistance to gold plating, etc. The resin composition is useful for solder resists, dry film resists, interlayer insulating materials for multilayer wiring boards, etc.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 8 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:150716 HCAPLUS Full-text
 DOCUMENT NUMBER: 146:218648
 TITLE: Photosensitive resin composition and cured article thereof
 INVENTOR(S): Tanaka, Ryutaro; Kurihashi, Toru; Koyanagi, Hiroo
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 25pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007015375	A1	20070208	WO 2006-JP314360	20060720
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
JP 2007041107	A	20070215	JP 2005-222629	20050801

PRIORITY APPLN. INFO.: JP 2005-222629 A 20050801

AB An alkaline aqueous solution-soluble photosensitive resin composition contains (A) an alkaline aqueous solution-soluble resin obtained by adding a polybasic acid anhydride (e.g., tetrahydrophthalic anhydride) to a resin which is a reaction product of a biphenyl-based epoxy resin with an unsatd. monocarboxylic acid (e.g., acrylic acid), (B) an epoxy resin as a curing agent, and (C) a photopolylmn. initiator. The resin composition is excellent in photosensitivity and excellent in flame resistance, flexibility, adhesiveness, pencil hardness, resistance to solvent, acid resistance, heat resistance, resistance to gold plating, etc. The resin composition is useful for solder resists.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 9 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:83854 HCPLUS Full-text

DOCUMENT NUMBER: 146:163963

TITLE: Manufacture of storage-stable epoxy resins derived from tetrakis(4-hydroxyphenyl)ethane or substituted bis(4-hydroxyphenyl)fluorene by efficient crystallization

INVENTOR(S): Nakanishi, Masataka; Ueda, Yoshihiko; Kuboki, Kenichi; Akatsuka, Yasumasa; Oshimi, Katsuhiko

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan; Nippon Kayaku Fukuyama Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 15pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007016115	A	20070125	JP 2005-198338	20050707
PRIORITY APPLN. INFO.:			JP 2005-198338	20050707

AB In the process, phenols [other than mixed phenols containing ≥80 area% (by HPLC) of 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane (I)] are reacted with epihalohydrins to give solns. of glycidyl ethers (i.e., title epoxy resins), which are precipitated, by adding poor solvents forming azeotropes with the epihalohydrins, to give crystal dispersions, wherefrom the solvents are removed. Thus, I (TEP DF) was reacted with epichlorohydrin and precipitated by using MeOH and water as above to give an epoxy resin with epoxy equivalent 167 g/equivalent, m.p. 169°, and residual epichlorohydrin content ≤100 ppm.

IT 31425-02-2P, TEP DF-epichlorohydrin copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)

(manufacture of epoxy resins derived from tetrakis(4-hydroxyphenyl)ethane

or

substituted bis(4-hydroxyphenyl)fluorene)

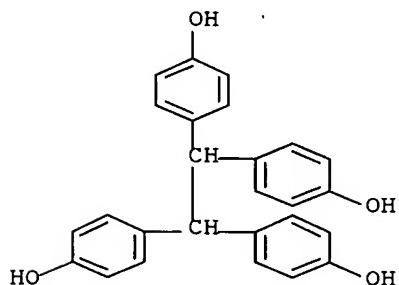
RN 31425-02-2 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis-, polymer with 2-(chloromethyl)oxirane (CA INDEX NAME)

CM 1

CRN 7727-33-5

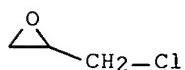
CMF C26 H22 O4



CM 2

CRN 106-89-8

CMF C3 H5 Cl O



L35 ANSWER 10 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:83852 HCPLUS Full-text

DOCUMENT NUMBER: 146:163962

TITLE: Manufacture of crystalline epoxy resins with excellent heat resistance

INVENTOR(S): Nakanishi, Masataka; Kuboki, Kenichi; Akatsuka, Yasumasa; Oshimi, Katsuhiro

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan; Nippon Kayaku Fukuyama

Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 15pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007016114	A	20070125	JP 2005-198334	20050707
PRIORITY APPLN. INFO.:			JP 2005-198334	20050707

AB Title epoxy resins are manufactured by (1) glycidyl etherification of phenol compds. other than ones containing $\geq 80\%$ (area% by HPLC) 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane (I) with epihalohydrins and optionally recovering part of epihalohydrins under heating and reduced pressure, (2) adding H₂O-soluble solvents to the resulting reaction liquid, (3) adding H₂O to the resulting mixts., and (4) filtering the resulting epoxy resin crystal dispersions. Thus, TEP-DF (glyoxal-phenol condensate; 98 area% I) 99.5, epichlorohydrin 740, and MeOH 148 parts were heated, refluxed with 40 parts NaOH, washed, distilled until resin concentration reached 60%, mixed with 100 parts DMSO and 200 parts MeOH, further mixed with 200 parts H₂O, filtered, and dried to give 149 parts powdered epoxy resin crystals showing m.p. 172° and residual epichlorohydrin <100 ppm.

IT 31425-02-2P, Epichlorohydrin-TEP-DF copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); PUR (Purification or recovery); PREP (Preparation)

(manufacture of crystalline epoxy resins with good heat resistance)

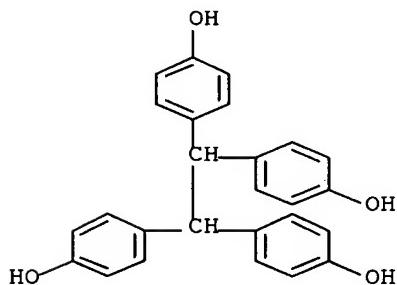
RN 31425-02-2 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis-, polymer with 2-(chloromethyl)oxirane (CA INDEX NAME)

CM 1

CRN 7727-33-5

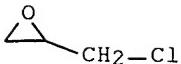
CMF C26 H22 O4



CM 2

CRN 106-89-8

CMF C3 H5 Cl O



L35 ANSWER 11 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2007:83850 HCPLUS Full-text
 DOCUMENT NUMBER: 146:164009
 TITLE: Epoxy resins, their manufacture, photosensitive resins therefrom, photosensitive resin compositions, and display devices using them
 INVENTOR(S): Nakanishi, Masataka; Kurihashi, Toru; Tanaka, Ryutaro
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 22pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007016113	A	20070125	JP 2005-198258	20050707
PRIORITY APPLN. INFO.:			JP 2005-198258	20050707

AB Title epoxy resins are characterized by transmitted light Y value ≥ 80 in XYZ color system in wavelength region of 380-780 nm at cell thickness 10 cm (sic) for 50% THF solns. and are manufactured by (1) reaction of dicyclopentadiene- or tricyclopentadiene-phenol condensates with epihalohydrins in the presence of ≥ 1 mol/mol-OH of alkali metal hydroxides and/or C1-6 alcs. or aprotic polar solvents and (2) ring-closure of residual halohydrin bodies in ≥ 1 solvents selected from C1-10 ketones, esters, and aromatic hydrocarbons, where reduction catalysts are added in at least either process. Title photosensitive resins are reaction products of the epoxy resins and unsatd. carboxylic acids. Thus, 716 parts phenol was distilled at 150° under reduced pressure until 100 parts phenol was recovered, treated with 75 parts dicyclopentadiene at 90-150° in the presence of BF₃.Et₂O complex, freed of 300 parts excess phenol, blended with MIBK, washed, and freed of solvent and phenol to give 142 parts yellow phenolic resin (OH equivalent 179 g/equiv), 85 parts of which was mixed with epichlorohydrin 300, DMSO 150, and Na₂S₂O₄ 5 parts, heated to 35°, further mixed with 20 parts NaOH, heated to 70°, mixed with MIBK, washed, evaporated, dissolved in MIBK, further treated with 5 parts of aqueous 30% NaOH at 70°, washed, dehydrated, passed through a column containing cerite and SiO₂ g el, washed with MEK, and evaporated to give 103 parts epoxy resin showing epoxy equivalent 245 g/equiv, softening point 59°, Y value 89, and total Cl content 420 ppm.

L35 ANSWER 12 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:1176130 HCPLUS Full-text
 DOCUMENT NUMBER: 145:490028
 TITLE: Flame- and impact-retardant epoxy resins and epoxy resin compositions
 INVENTOR(S): Nakanishi, Masataka; Tanaka, Ryutaro
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 28pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

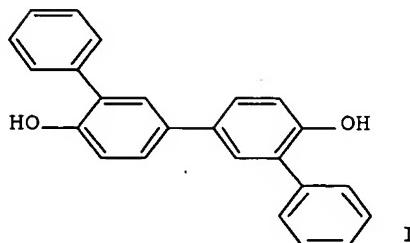
Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006118240	A1	20061109	WO 2006-JP308959	20060428
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
JP 2006307011	A	20061109	JP 2005-131463	20050428
KR 2008000634	A	20080102	KR 2007-725298	20071031
PRIORITY APPLN. INFO.:			JP 2005-131463	A 20050428
			WO 2006-JP308959	W 20060428

GI



AB Provides is an epoxy resin which is a crystalline epoxy resin, which gives a cured object excellent in various properties including flame retardancy, low water absorption, and impact resistance, and is useful as an optical material; an epoxy resin composition containing crystals of the epoxy resin and having excellent storage stability; and a cured object obtained from the composition. The crystalline epoxy resin is obtained by the glycidylation of the compound represented by the following formula (I).

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 13 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1115950 HCPLUS Full-text

DOCUMENT NUMBER: 145:429496

TITLE: Thermal printing material using specific color developer

INVENTOR(S): Tsugawa, Hiroaki; Akatsuka, Yasumasa; Nakanishi,

Masataka

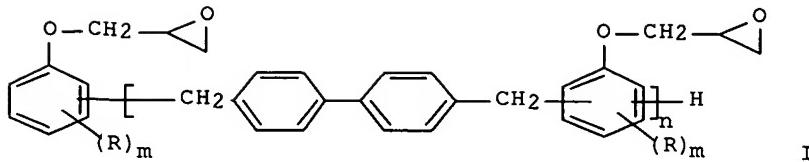
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006289741	A	20061026	JP 2005-112549	20050408
PRIORITY APPLN. INFO.:			JP 2005-112549	20050408
AB The material contains a colorless color-former and 4-allyloxy-4'-hydroxydiphenyl sulfone and 3,3'-diphenyl-4,4'-dihydroxybiphenyl as color developers. The material shows good heat and moisture resistance, storage stability, and gives images without background fog.				

L35 ANSWER 14 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:978338 HCPLUS Full-text
 DOCUMENT NUMBER: 145:336750
 TITLE: Epoxy resin, epoxy resin composition, and prepreg and laminates wherewith
 INVENTOR(S): Oshimi, Katsuhiko; Akatsuka, Yasumasa; Nakanishi, Masataka; Sunaga, Takao
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 22pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006098329	A1	20060921	WO 2006-JP305041	20060314
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1860133	A1	20071128	EP 2006-729075	20060314
R: CH, DE, LI				
KR 2007121672	A	20071227	KR 2007-721085	20070914
PRIORITY APPLN. INFO.:			JP 2005-73070	A 20050315
			WO 2006-JP305041	W 20060314

GI



AB Epoxy resin composition for preparation of prepgs and laminates comprises (A) epoxy resin (I) (where R = C1-4 hydrocarbyl; m = 1-4; Rs can be different if m > 1; n = 1-6), (B) curing agents, and (C) curing catalysts. Thus, o-cresol and 4,4'-bis(chloromethyl)-1,1'-biphenyl were polymerized, and then reacted with epichlorohydrin to give a product; glass cloth was impregnated with the product to give prepg, followed by laminating with Cu foils to give laminate with good heat or water resistance and low dielec. constant

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 15 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:912737 HCAPLUS Full-text
DOCUMENT NUMBER: 145:293779

TITLE: Modification of the molecular weight distribution of epoxy resins

INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa; Oshimi, Katsuhiko; Sunaga, Takao

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006233078	A	20060907	JP 2005-51102	20050225
PRIORITY APPLN. INFO.:			JP 2005-51102	20050225

AB Epoxy resins are dissolved in good solvents and mixed with poor solvents to sep. poor-solvent-sols. (low-mol.-weight epoxy resins) and good-solvent-sols. (oligomers or polymers). Thus, EOCN 104S was dissolved in Me iso-Bu ketone and mixed with methanol to give 18% resin having mol. weight 1367 and 82% resin having mol. weight 10615.

L35 ANSWER 16 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:886359 HCAPLUS Full-text
DOCUMENT NUMBER: 145:272879

TITLE: Epoxy resins with good storage stability

INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa; Oshimi, Katsuhiko; Sunaga, Takao

PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
SOURCE: PCT Int. Appl., 39pp.

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006090662	A1	20060831	WO 2006-JP302947	20060220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
CA 2599153	A1	20060831	CA 2006-2599153	20060220
EP 1852451	A1	20071107	EP 2006-714088	20060220
R: CH, DE, FR, GB, LI				
KR 2007108384	A	20071109	KR 2007-719209	20070822
CN 101128501	A	20080220	CN 2006-80005859	20070823
PRIORITY APPLN. INFO.:				
			JP 2005-51150	A 20050225
			JP 2005-51959	A 20050225
			WO 2006-JP302947	W 20060220

AB Title epoxy resins comprise a phenol aralkyl type epoxy resin with bifunctional epoxy content ≤20% (area % measured by gel permeation chromatog.). Thus, 100 parts NC 3000H (phenol vinphenyl novolak epoxy resin) with softening point 68°, epoxy equivalent 288 g/equiv, and bifunctional epoxy content 23% was dissolved in 50 parts MEK at 100°, 200 parts methanol was added therein at 60°, refluxed for 1 h, decanted an upper portion, 25 parts MEK and 200 parts methanol were added into a residual portion, refluxed for 1 h, decanted an upper portion, repeated the separation process two times, and evaporated solvents to give an epoxy resin with softening point 78°, epoxy equivalent 294 g/equiv, bifunctional epoxy content 14%, Mw 2682, and good storage stability, 147 parts of which was mixed with 53 parts H 1 (phenol novolak) and 1.5 parts triphenylphosphine, showing glass transition temperature 160°, flexural strength 110 MPa, and toughness at break (JIS K 6911) 26 MPa.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 17 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:817348 HCPLUS Full-text
 DOCUMENT NUMBER: 145:231268
 TITLE: Heat-resistant phenol-glyoxal type multifunctional epoxy resin compositions and cured products
 INVENTOR(S): Nakanishi, Masataka; Sunaga, Takao
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2006213823

A

20060817

JP 2005-27908

20050203

PRIORITY APPLN. INFO.:

JP 2005-27908

20050203

AB The compns., useful for semiconductor sealants, etc., comprise epoxy resins containing ≥50% (area% by HPLC) 1,1,2,2-tetrakis(4-glycidoxyphenyl)ethane (I) and acid anhydride-based curing agents. Thus, TEP-DF [99% 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane] 300, epichlorohydrin 1110, and MeOH 240 parts were treated with 120 parts NaOH at 70°, washed, evaporated, refluxed with 1000 parts MeOH, filtered, and dried to give 431 parts crystalline epoxy resin (EP1) containing 72% I. Then, 166 parts EP1 and 94.5 parts methyl nadic anhydride (Kayahard MCD) were dispersed, mixed with 2.5 parts imidazole (2E4MZ), cast-molded, and cured at 120-180° to give a cured product showing good heat resistance.

IT 905704-88-3P, Epichlorohydrin-Kayahard MCD-TEP-DF copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(heat-resistant phenol-glyoxal type multifunctional epoxy resin compns.)

RN 905704-88-3 HCPLUS

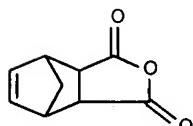
CN 4,7-Methanoisobenzofuran-1,3-dione, 3a,4,7,7a-tetrahydromethyl-, (3aR,4S,7R,7aS)-rel-, polymer with (chloromethyl)oxirane and 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 25134-21-8

CMF C10 H10 O3

CCI IDS

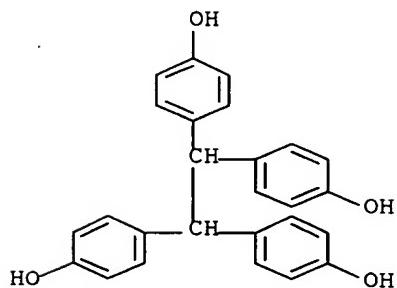


D1-Me

CM 2

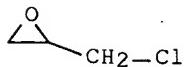
CRN 7727-33-5

CMF C26 H22 O4

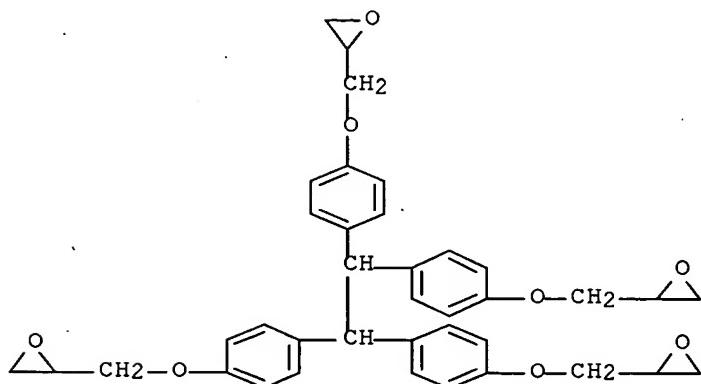


CM 3

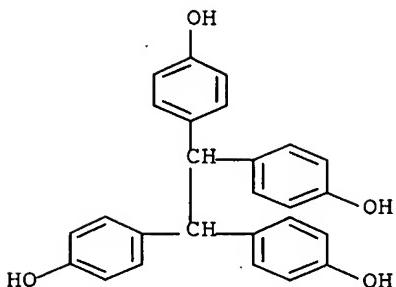
CRN 106-89-8
 CMF C3 H5 Cl O



IT **7328-97-4P**, 1,1,2,2-Tetrakis(4-glycidophenyl)ethane
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (heat-resistant phenol-glyoxal type multifunctional epoxy resin compns.)
 RN 7328-97-4 HCPLUS
 CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxyethylene)]tetrakis- (CA INDEX NAME)



IT **7727-33-5**, TEP-DF
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (heat-resistant phenol-glyoxal type multifunctional epoxy resin compns.)
 RN 7727-33-5 HCPLUS
 CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L35 ANSWER 18 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:762247 HCPLUS Full-text

DOCUMENT NUMBER: 145:198833

TITLE: Thermal printing sheets

INVENTOR(S): Tsugawa, Hiroaki; Akatsuka, Yasumasa; Nakanishi, Masataka

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

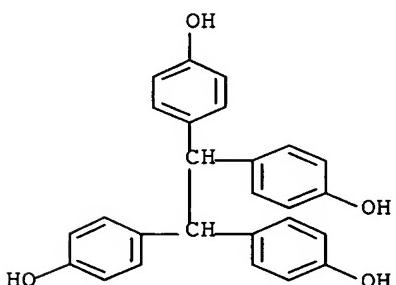
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006198775	A	20060803	JP 2005-10025	20050118
PRIORITY APPLN. INFO.:			JP 2005-10025	20050118
AB	The title sheet contains a leuco dye and color developing compds., wherein the color developing compds. are 4-allyloxy-4'-hydroxydiphenylsulfone and 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane. The sheet provides good color images and good storageability under heat and moisture.			
IT	7727-33-5, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane RL: TEM (Technical or engineered material use); USES (Uses) (thermal printing sheets)			
RN	7727-33-5 HCPLUS			
CN	Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)			



L35 ANSWER 19 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:634062 HCPLUS Full-text

DOCUMENT NUMBER: 145:104476
 TITLE: Epoxy resin, epoxy resin composition, and cured object obtained therefrom
 INVENTOR(S): Akatsuka, Yasumasa; Oshimi, Katsuhiko; Nakanishi, Masataka; Moteki, Shigeru
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 20 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006068185	A1	20060629	WO 2005-JP23505	20051221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
CN 101084252	A	20071205	CN 2005-80044037	20051221
KR 2007098814	A	20071005	KR 2007-714137	20070621
PRIORITY APPLN. INFO.:			JP 2004-369304	A 20041221
			WO 2005-JP23505	W 20051221

AB Disclosed is an epoxy resin which is easy to produce and readily realizes a state in which the mols. are oriented. The epoxy resin gives a cured object which has optical anisotropy and is excellent in toughness and thermal conductivity. The epoxy resin can be obtained by subjecting an epoxidized product of 4,4'-bisphenol F to chain extension with 4,4'-biphenol.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

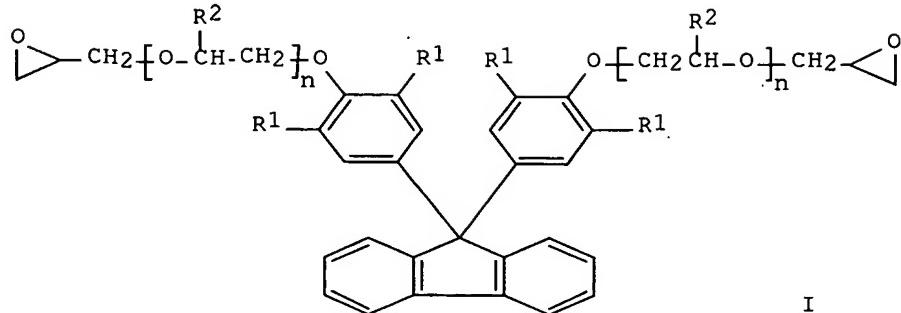
L35 ANSWER 20 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:211727 HCPLUS Full-text
 DOCUMENT NUMBER: 144:283228
 TITLE: Photosensitive resin composition and cured product for manufacture of printed circuit board
 INVENTOR(S): Tanaka, Ryutaro; Nakanishi, Masataka; Akatsuka, Yasumasa; Oshimi, Katsuhiko; Koyanagi, Takao
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006064890	A	20060309	JP 2004-246043	20040826

PRIORITY APPLN. INFO.:
GI

JP 2004-246043

20040826



AB Title resin composition comprises (A) an aqueous alkali-soluble resin, (B) a reactive crosslinking agent, (C) a radical polymerization initiator, and (D) a curing agent of structure I ($n = 0-3$; $R1 = H$, halogen, C1-4 alkyl, phenyl; $R2 = H$, methyl).

L35 ANSWER 21 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:144021 HCPLUS Full-text

DOCUMENT NUMBER: 144:213583

TITLE: Manufacture of polyamide powders with good washing and drying performance and high solubility by spraying

INVENTOR(S): Uchida, Makoto; Akatsuka, Yasumasa; Motegi, Shigeru; Ishikawa, Kazunori; Uehara, Ryuji; Nakanishi, Masataka; Kametani, Hideteru

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006045529	A	20060216	JP 2005-191115	20050630
PRIORITY APPLN. INFO.:			JP 2004-195223	A 20040701

AB Polyamide solns. are sprayed as mist onto the surfaces of poor solvents to give polyamide powders. Thus, isophthalic acid 20.335, 5-hydroxyisophthalic acid 22.294, and 3,4'-diaminodiphenyl ether 50.00 g were heated at 95° in N-methyl-2-pyrrolidone containing LiCl, pyridine, and Ph3PO3 to give a polyamide solution (solution viscosity at 25° 970 mPa·s, polyamide concentration 15%). The polyamide solution was sprayed onto the surface of H2O, stirred, and the resulting dispersion was filtered, washed, and hot-air dried at 75° for 24 h to give polyamide powder (average particle size 80 µm) in 96% yield. A solution prepared by dissolving 0.100 g of the polyamide powder in 20.0 mL N,N-dimethylacetamide showed logarithmic viscosity (at 30°) 0.45 dL/g.

L35 ANSWER 22 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:74901 HCPLUS Full-text
 DOCUMENT NUMBER: 144:151180
 TITLE: Liquid crystal epoxy resins, their compositions and
 their cured products having flexibility and optical
 anisotropy
 INVENTOR(S): Akatsuka, Yasumasa; Oshimi, Katsuhiko; Nakanishi,
 Masataka
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006008984	A1	20060126	WO 2005-JP12649	20050708
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
CA 2578687	A1	20060126	CA 2005-2578687	20050708
EP 1770108	A1	20070404	EP 2005-765544	20050708
R: CH, DE, FR, GB, LI				
CN 1989165	A	20070627	CN 2005-80023789	20050708
KR 2007043716	A	20070425	KR 2006-726777	20061219
US 2008032154	A1	20080207	US 2007-630813	20070131
PRIORITY APPLN. INFO.:				
		JP 2004-211360	A	20040720
		JP 2004-277315	A	20040924
		WO 2005-JP12649	W	20050708

AB The epoxy resin GO-p-C₆H₄CH₂-p-C₆H₄[OCH₂CH(OH)CH₂O]-C₆H₄CH₂-p-C₆H₄]nOG (G = glycidyl) is obtained by reacting 4,4'-bisphenol F with epichlorohydrin in the alkali metal hydroxide, then reacting 4,4'-bisphenol F and crystallizing In the epoxy resin, the area ratio of dinuclear component determined by GPC is not more than 25%.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 23 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:11102 HCPLUS Full-text
 DOCUMENT NUMBER: 144:109347
 TITLE: Epoxy resins for epoxy resin compositions with good
 heat resistance, adhesion, and toughness
 INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa; Oshimi,
 Katsuhiko; Tanaka, Ryutaro
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

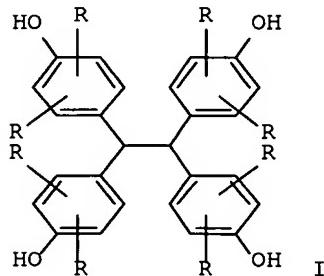
Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006001395	A1	20060105	WO 2005-JP11670	20050624
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
CA 2570409	A1	20060105	CA 2005-2570409	20050624
EP 1760101	A1	20070307	EP 2005-753292	20050624
R: CH, DE, FR, GB, LI				
CN 1972978	A	20070530	CN 2005-80020580	20050624
US 2008021173	A1	20080124	US 2006-629313	20061212
KR 2007034534	A	20070328	KR 2006-727673	20061228
PRIORITY APPLN. INFO.:				
		JP 2004-188841	A	20040625
		JP 2004-188844	A	20040625
		WO 2005-JP11670	W	20050624

GI



AB Title epoxy resins are obtained by glycidylation of a mixture of (A) a phenol-glyoxal condensation product containing $\geq 80\%$ (by gel permeation chromatog.) a compound I and (B) a phenol excluding A or a phenol resin, wherein R = independently H, C1-15 hydrocarbon, or trifluoromethyl group. Thus, TEP-DF (phenol-glyoxal condensate) 90, Kayahard GPH 65 (biphenyl type phenol aralkyl resin) 10, epichlorohydrin 429, and methanol 80 parts were mixed, 38 parts flake sodium hydroxide was added therein, and heated at 70° for 60 min to give an epoxy resin with epoxy equivalent 179 g/equiv, 100 parts of which was mixed with 59 parts phenol novolak and 1.0 part triphenylphosphine, transfer-molded, and cured at 160° for 2 h and 180° for 8 h to give a test piece, showing glass

transition temperature 190°, moisture absorption 1.2%, Izod impact strength 14 kJ/m, and Klc (JIS K 6911) 22 N/mm^{1.5}.

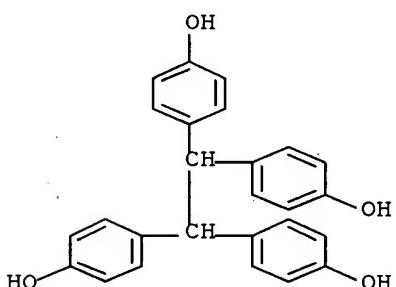
IT 7727-33-5DP, TEP-DF, reaction products with phenolic compds. and epichlorohydrin, polymers with phenolic resins

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(epoxy resins for epoxy resin compns. with good heat resistance, adhesion, and toughness)

RN 7727-33-5 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 24 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1262134 HCPLUS Full-text

DOCUMENT NUMBER: 144:7531

TITLE: Heat-resistant crystalline epoxy resins with low melt viscosity, their manufacture, compositions, electronic packaging materials for semiconductors, and their cured materials

INVENTOR(S): Nakanishi, Masataka; Motegi, Shigeru; Tanaka, Ryutaro

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

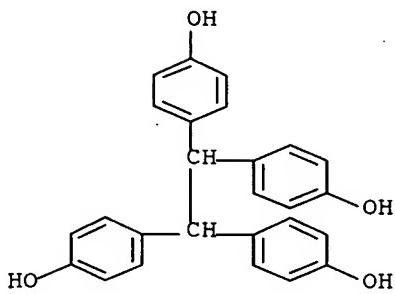
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005330475	A	20051202	JP 2005-120604	20050419
PRIORITY APPLN. INFO.:			JP 2004-123978	A 20040420
AB	The epoxy resins are prepared by reacting epihalohydrin with phenols of CH(p-OHC ₆ H ₄ -nRn) ₃ (R = H, Cl-5 alkyl, halo, Cl-5 alkoxy, Ph, aryl; n = 1-4). The manufacturing method includes dissolving epoxy resins in solvents containing ≥1 good solvents selected from C3-10 cyclic or linear ketones, esters, ethers, aprotic polar solvents, and C6-12 aromatic organic solvents, adding solvents containing ≥1 poor solvents selected from water, alcs., and aliphatic hydrocarbons, separating into two phases, stirring to give suspensions, and further adding linear ketones or linear esters. Thus, dissolving 200 parts epichlorohydrin-tris(p-hydroxyphenyl)methane copolymer (softening point 42.7°, epoxy equivalent 166 g-equiv) in a mixed solvent comprising water 100,			

isopropanol 200, and MEK 300 parts, removing solvents at 90° and 0.1 kPa to give crystals, adding 150 parts MEK, dissolving, adding 150 parts methanol to give separated two phases, stirring to give a suspension, and adding MIBK gave a crystalline epoxy resin with m.p. 109°, epoxy equivalent 161 g-equiv, and viscosity at 150° 0.03 Pa-s. A composition containing the crystalline epoxy resin 50, phenol novolak 32.9, and triphenylphosphine 0.5 part was transfer-molded to give a test piece showing Tg 183°, linear expansion coefficient α_1 70 and α_2 161 ppm/°C, and adhesion strength to Cu 2.4 N/cm.

L35 ANSWER 25 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:1149684 HCPLUS Full-text
 DOCUMENT NUMBER: 143:423292
 TITLE: Modified epoxy resins with good heat resistance and low viscosity, their compositions, their cured products, and semiconductor devices having them
 INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa; Oshimi, Katsuhiko; Tanaka, Ryutaro
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005298614	A	20051027	JP 2004-114854	20040409
PRIORITY APPLN. INFO.:			JP 2004-114854	20040409
AB	The invention relates to epoxy resins manufactured by glycidylation of mixts. consisting of 4,4'-dihydroxybiphenyl (I) and Q12CHCHQ1Q2(CHQ1CHQ1Q2)nH [II; Q1 = (un)substituted hydroxyphenyl, number of substituent = 0-2, substituent = halo, C1-10 hydrocarbyl, CF3, aryl; Q2 = (un)substituted hydroxyphenylene, number of substituent and substituent = same as above; n = 0-10 (obtained by UV-GPC at 245 nm)], useful for elec. insulators, elec. packaging materials, resists, adhesives, etc. Thus, a mixture comprising I and II (Q1 = hydroxyphenyl, Q2 = hydroxyphenylene, n = 0.04) containing 1-(2-hydroxyphenyl)-1,2,2-tris(4-hydroxyphenyl)ethane and 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane was reacted with epichlorohydrin, kneaded with a phenol aralkyl resin (Milex XL 225-3L), silica, and other additives, and pelletized to give a composition showing spiral flow 72 in.			
IT	7727-33-5DP, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane, glycidyl ethers, reaction products with epoxy resins and aralkyl resins			
RL:	IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)			
	(epoxy resins with good flowability and heat resistance for semiconductor device packaging)			
RN	7727-33-5 HCPLUS			
CN	Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis-		(CA INDEX NAME)	



L35 ANSWER 26 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:822492 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:194703
 TITLE: Manufacture of heat-resistant crystalline epoxy resins
 INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

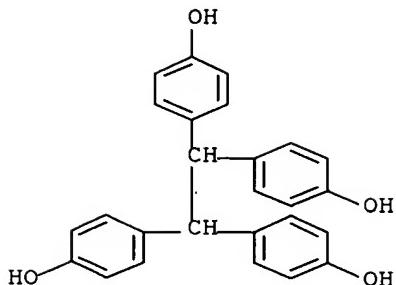
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005220302	A	20050818	JP 2004-31791	20040209
PRIORITY APPLN. INFO.:			JP 2004-31791	20040209

AB Title resins are manufactured by reaction of condensed phenols containing ≥ 80 area% (measured by HPLC at 250-300 nm) 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane (I) with epichlorohydrin, dissolving the products in cyclic ketones, and precipitating them with C4-6 linear or branched lower ketones or $C \leq 6$ lower alcs. Thus, glyoxal-phenol condensate containing 98.9 area% I was refluxed with epichlorohydrin and NaOH in MeOH, filtered, the filtrate concentrated, dissolved in cyclopentanone, and treated with Me iso-Bu ketone to give 62.8% epoxy resin with TPC1 442.1 K and TPC2 451.2 K.

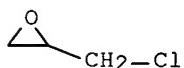
IT 31425-02-2P, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane-
 Epichlorohydrin polymer
 RL: IMF (Industrial manufacture); PUR (Purification or recovery); PREP (Preparation)
 (manufacture and crystallization of heat-resistant epoxy resins with ketone or alc.
 solvents)

RN 31425-02-2 HCAPLUS
 CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis-, polymer with 2-(chloromethyl)oxirane (CA INDEX NAME)

CM 1
 CRN 7727-33-5
 CMF C26 H22 O4



CM 2

CRN 106-89-8
CMF C3 H5 Cl O

L35 ANSWER 27 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:813712 HCPLUS Full-text
 DOCUMENT NUMBER: 143:194694
 TITLE: Manufacture of crystalline heat-resistant epoxy resins
 INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005220300	A	20050818	JP 2004-31787	20040209
PRIORITY APPLN. INFO.:				
AB	The invention relates to manufacturing method of CHAr12CHAR1Ar2(CHAr1CHAR1Ar2) _m H (Ar1 = HORnC6H4-n; Ar2 = HORnC6H3-n; R = H, C≤4 hydrocarbon chain; m = 0-5; n = 1-2) containing glycidylation of condensation phenols containing ≥70% [based on HPLC (high-performance liquid chromatog.) peak area at 250-300 nm] (CHAr32) ₂ (Ar3 = 4-OH-RnC6H4-n; R, n = same as above) with epihalohydrins to give glycidylation compds., removal of residual epihalohydrins in the presence of good solvents with b.p. ≥30° higher than the b.p. of the epihalohydrins for the glycidylation compds., addition of poor solvents for the glycidylation compds., and crystallization Epoxy resins by the method are useful for adhesives, elec. parts. etc. Thus, reacting glyoxal-phenol copolymer compds. containing 1,1,2,2-tetrakis(4-hydroxyphenyl)ethane with epichlorohydrin (I), removing residual I in DMSO, and crystallizing in H ₂ O and MeOH gave a colorless crystalline epoxy resin			

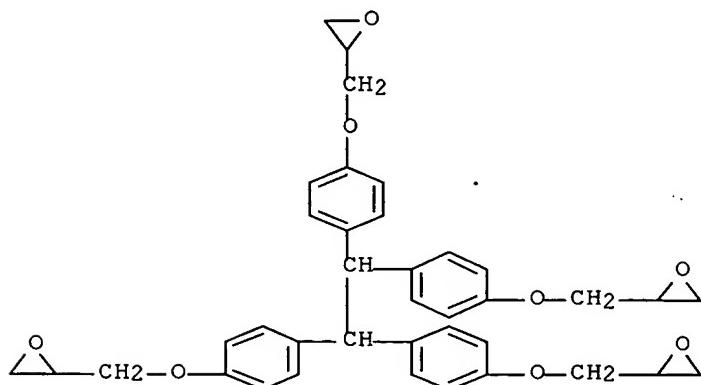
containing 1,1,2,2-tetrakis(4-glycidoxyphenyl)ethane in 90% yield showing m.p. 455.1 K.

IT **7328-97-4P**, 1,1,2,2-Tetrakis(4-glycidoxyphenyl)ethane

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(manufacture of crystalline heat-resistant epoxy resins)

RN 7328-97-4 HCAPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)

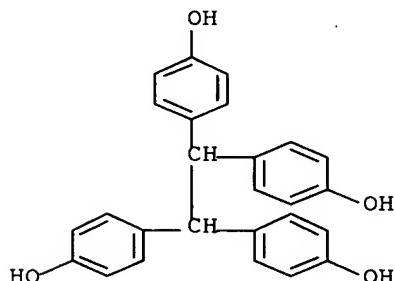


IT **7727-33-5**, 1,1,2,2-Tetrakis(4-hydroxyphenyl)ethane

RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of crystalline heat-resistant epoxy resins)

RN 7727-33-5 HCAPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis- (CA INDEX NAME)



L35 ANSWER 28 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:697110 HCAPLUS Full-text

DOCUMENT NUMBER: 143:163099

TITLE: Photosensitive resin composition with excellent photosensitivity and cured product thereof

INVENTOR(S): Koyanagi, Hiroo; Tanaka, Ryutaro; Kametani, Hideaki

PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

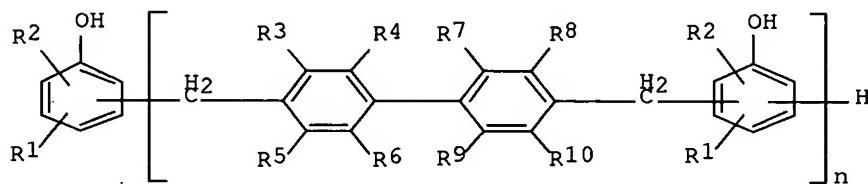
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005071489	A1	20050804	WO 2005-JP761	20050121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2552905	A1	20050804	CA 2005-2552905	20050121
EP 1710626	A1	20061011	EP 2005-703982	20050121
R: CH, DE, ES, GB, IT, LI				
CN 1910519	A	20070207	CN 2005-80003090	20050121
KR 2007001130	A	20070103	KR 2006-716273	20060811
PRIORITY APPLN. INFO.:			JP 2004-16751	A 20040126
			WO 2005-JP761	W 20050121

GI



AB Disclosed is a photosensitive resin composition with excellent photosensitivity whose cured product is excellent in adhesiveness, pencil hardness, solvent resistance, acid resistance, heat resistance, gold plating resistance, HAST (highly accelerated temperature and humidity stress test) properties, flame retardance, flexibility and the like. Also disclosed is such a cured product. A photosensitive resin composition is characterized by comprising a reaction product (A) of a compound (a) represented by the formula I ($n = 1-20$; R1, R2 = H, halo, C1-4-alkyl; R3, R5, R8, R10 = H, halo, methyl; R4, R6, R7, R9 = H, methyl), a compound (b) having an ethylenically unsatd. group and a glycidyl group in a mol. and a polybasic acid anhydride (c), a crosslinking agent (B) and a photopolymn. initiator (C). Also disclosed is a cured product of such a photosensitive resin composition

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2005:692330 HCPLUS Full-text
 DOCUMENT NUMBER: 143:173940
 TITLE: Rubber-modified epoxy resins, compositions containing them, their transparent cured materials with high fracture toughness, photosemiconductors sealed with them, and manufacture of the resins
 INVENTOR(S): Nakanishi, Masataka; Tanaka, Ryutaro; Kawada, Yoshihiro
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005206690	A	20050804	JP 2004-14496	20040122
PRIORITY APPLN. INFO.:			JP 2004-14496	20040122

AB The resins are manufactured by reacting glycidyl ether with phenol polymers linked by C \geq 7 alicyclic compds. to give epoxy resins with light transmittance at 400 nm (T400; 20% carbitol acetate solution) \geq 30% and modifying with rubbers. Thus, reacting C_nH_{4(OH)}[XC_nH_{4(OH)}]n (X = tetrahydrodicyclopentadienylene) with epichlorohydrin in the presence of NaOH to give an epoxy resin showing softening point 59°, epoxy equivalent 247 g-equiv, and T400 82%. Feeding the epoxy resin 100, carboxy-containing rubber (Hycar CTBN) 10, and toluene 170 parts, adding PPh₃, heating at 110°, removing toluene at pressure 95-105 kPa, and reacting gave a modified epoxy resin, which was mixed with curing agent (Rikacid TH) and transfer-molded to give a test piece showing Tg 140° and Izod impact strength 27 kJ/m².

L35 ANSWER 30 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:671950 HCPLUS Full-text
 DOCUMENT NUMBER: 143:154218
 TITLE: Manufacture of crystalline epoxy compounds with high yield
 INVENTOR(S): Akatsuka, Yasumasa; Oshimi, Katsuhiko; Nakanishi, Masataka
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005200527	A	20050728	JP 2004-7668	20040115
PRIORITY APPLN. INFO.:			JP 2004-7668	20040115

AB The manufacturing method comprises (A) dissolving CHQ₂CHQ₂ (I; Q = monohydroxyphenyl) in epihalohydrins, (B) adding alkali metal hydroxides for preparing glycidyl ethers, (C) washing with H₂O for removing alkali metal halides, and (D) removing the epihalohydrins by azeotropic distillation with H₂O to obtain epoxy crystals precipitated in the water. Thus, reacting 99.5 parts I (Q = p-hydroxyphenyl; TEP-DF) and 370 parts epichlorohydrin in MeOH in

the presence of NaOH, removing MeOH, washing for removing NaCl, and azeotropically distilling with H₂O gave white crystals of an epoxy compound with yield 144 parts, epoxy equivalent 166 g/equiv, and m.p. 180°.

IT 31425-02-2P, Epichlorohydrin-TEP-DF copolymer
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYF (Physical process); PREP (Preparation); PROC (Process)
 (manufacture of crystalline epoxy compds. with high yield)

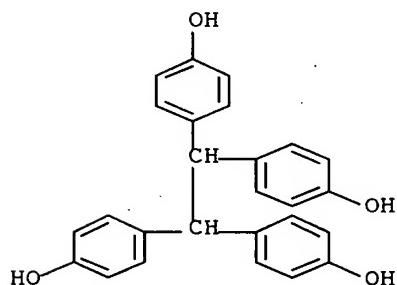
RN 31425-02-2 HCPLUS

CN Phenol, 4,4',4'',4'''-(1,2-ethanediylidene)tetrakis-, polymer with 2-(chloromethyl)oxirane (CA INDEX NAME)

CM 1

CRN 7727-33-5

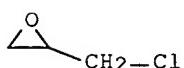
CMF C26 H22 O4



CM 2

CRN 106-89-8

CMF C3 H5 Cl O



L35 ANSWER 31 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:660696 HCPLUS Full-text

DOCUMENT NUMBER: 143:134549

TITLE: Manufacture of phenol polymers, epoxy resins using them, compositions containing them, their moisture-resistant cured materials with good adhesion and high tenacity, and semiconductor devices having them

INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005200544	A	20050728	JP 2004-8187	20040115
PRIORITY APPLN. INFO.:			JP 2004-8187	20040115
AB	The manufacturing method of C ₆ H ₄ -m(OH)R _{1m} [QC ₆ H ₃ -m(OH)R _{1m}]nH (R ₁ = H, halo, C ₁ -10 alkyl, aryl; Q = tricyclopentadiene residue; m = 1-3; n = 1-15) includes reacting C ₆ H ₅ -p(OH)R _{2p} (R ₂ = same as R ₁ , p = 1-3) with tricyclopentadiene in the presence of Lewis acids at 100-130° for 1-3 h, then further reacting at 130-180° for 3-12 h. Thus, feeding phenol and trifluoroborane di-Et etherate, adding tricyclopentadiene dropwise, stirring at 120° for 1 h, further stirring at 130° for 1 h, then heating at 145° for 4 h to give a phenol polymer, adding epichlorohydrin, and reacting in the presence of NaOH gave an epoxy resin with viscosity at 150° 0.26 Pa-s, epoxy equivalent 323 g-equiv, softening point 80°, and Gardner color 1. A composition containing 64 parts of the epoxy resin and 32 parts terpene-based phenols (YP 90) was transfer-molded to give test pieces showing T _g 147°, water absorption 0.8% after immersing in water at 100° for 24 h, fracture toughness 27.1 MPa, and adhesion strength to Cu 2.6 kN/m (JIS K 6911).			

L35 ANSWER 32 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:589066 HCPLUS Full-text

DOCUMENT NUMBER: 143:98165

TITLE: Polyamide acid resins having unsaturated group for photosensitive resin compositions with good sensitivity

INVENTOR(S): Amishima, Chika; Tanaka, Ryutaro; Kametani, Hideaki; Koyanagi, Hiroo

PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005061586	A1	20050707	WO 2004-JP19009	20041220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2550676	A1	20050707	CA 2004-2550676	20041220
EP 1698651	A1	20060906	EP 2004-807366	20041220
R: CH, DE, ES, GB, IT, LI				
CN 1898299	A	20070117	CN 2004-80038308	20041220
PRIORITY APPLN. INFO.:			JP 2003-424950	A 20031222

AB Title polyamic acid resins are obtained by reacting a anhydride-end polyester resin containing an unsatd. group with a compound having two amino groups and the cured products of the photosensitive resin compns. are excellent in flexibility, adhesion, pencil hardness, and solvent, acid , heat resistance, and gold plating resistance . The photosensitive resin compns. contain (A) a polyamide acid resin containing an unsatd. group, (B) a crosslinking agent, and (C) a photopolymn. initiator. Thus, 372 g Epikote 828 and 144.1 g acrylic acid were reacted in the presence of a polymerization inhibitor at 100° for 22 h, 436.2 g pyromellitic anhydride was added therein and reacted at 100° for 10 h, reacted with 193.5 g 3, 4'-diaminodiphenyl ether at 15° for 24 h to give a polyamide having an unsatd. group, 38.15 g of which was mixed with dipentaerythritol hexaacrylate 5.16, trimethylolpropane triacrylate 2.00, Irgacure 907 3.58, DETX-S (2,4-diethylthioxanthone) 0.36, YX 4000 (bixylenol type epoxy resin) 3.58, TEPIC (alicyclic epoxy resin) 7.16, melamine 1.07, silica 7.88, barium sulfate 17.53, pigment 0.47, Byk 354 (leveling agent) 0.72, KS 66 (antifoaming agent) 0.72, and propylene glycol monomethyl ether acetate 11.72 g , applied on a copper printed circuit board, dried at 80° for 60 min, irradiated through a photomask, developed,washed, and dried at 150° for 40 min to give a test piece with good tack property, gloss, surface gloss, adhesion, solvent, acid, gold plating, bending, and heat resistance, pencil hardness 5H, and no warping.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 33 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:522155 HCAPLUS Full-text

DOCUMENT NUMBER: 143:27366

TITLE: Heat-resistant flexible epoxy resins, epoxy resin compositions, and cured products thereof

INVENTOR(S): Akatsuka, Yasumasa; Motegi, Shigeru; Nakanishi, Masataka

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

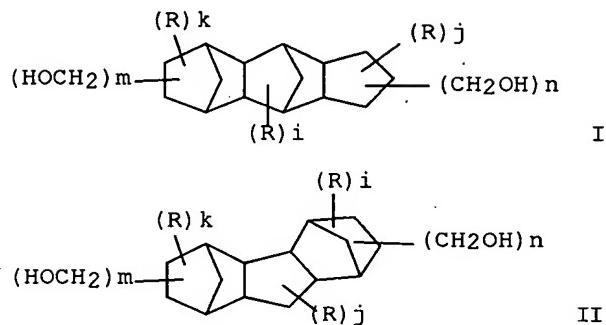
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005154484	A	20050616	JP 2003-391777	20031121
PRIORITY APPLN. INFO.: JP 2003-391777 20031121				
AB The epoxy resins are GOC ₆ H ₃ Me[CH ₂ C ₆ H ₂ Me(OG)] _n H (G = glycidyl; Me groups are positioned at m- or p-positions against glycidyl ether groups; ratio of Ph groups having m-Me and those having p-Me = 90:10 to 10:90; n = 6-30) and have softening point ≥100°. Varnishes, sheets, and prepgs containing the epoxy resin compns. containing curing agents are also claimed. Thus, 108 parts m-cresol and 108 parts p-cresol were treated with 60 parts of an aqueous 35% HCHO solution at 130° for 3 h in the presence of p-toluenesulfonic acid, mixed with MIBK, washed, and evaporated to give 140 parts cresol resin, 120 parts of which was treated with 370 parts epichlorohydrin at 70° for 1 h in MeOH in the presence of NaOH, washed, evaporated, dissolved in MIBK, heated, further treated with NaOH, washed, and evaporated to give an epoxy resin showing epoxy equivalent 216 g-equiv and softening point 114.2°.				

L35 ANSWER 34 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:471189 HCPLUS Full-text
 DOCUMENT NUMBER: 143:8870
 TITLE: Liquid pentacyclopentadecane epoxy resins, their compositions, cured products of the compositions, and semiconductor devices using the products
 INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa; Kametani, Hideteru
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005139285	A	20050602	JP 2003-376715	20031106
PRIORITY APPLN. INFO.:			JP 2003-376715	20031106
GI				

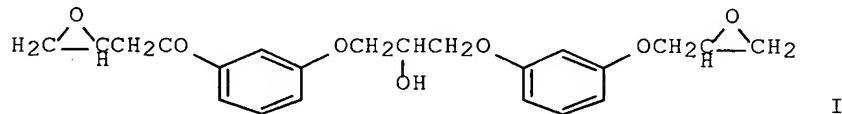


AB The epoxy resins are manufactured by treatment of poly(hydroxymethyl)pentacyclo pentadecanes I and/or II ($R = H$, C1-3 alkyl; $m + n = 2, 3$; $i, j, k = 1-3$) with epihalohydrins. Thus, a composition containing I ($R = H$, $m = n = 1$)-II ($R = H$, $m = n = 1$)-epichlorohydrin copolymer (light transmittance $\geq 90\%$ at 220-1100 nm) 183, Kayahard MCD (methylnadic anhydride) 158, and 2-ethyl-4-methylimidazole 2 parts was cast to give a test piece showing water absorption 0.8%, fracture toughness 40.1 MPa (K1C), and good adhesion to Cu.

L35 ANSWER 35 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:368195 HCPLUS Full-text
 DOCUMENT NUMBER: 142:393263
 TITLE: Liquid epoxy resins, their compositions, and cured articles with high heat resistance and good mechanical strength therefrom

INVENTOR(S): **Akatsuka, Yasumasa; Oshimi, Katsuhiko; Nakanishi, Masataka**
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005112896	A	20050428	JP 2003-345346	20031003
PRIORITY APPLN. INFO.:			JP 2003-345346	20031003
GI				



I

AB The compns., useful for elec. devices, adhesives, coatings, etc., comprise liquid epoxy resins I, curing agents, and optionally curing accelerators and inorg. fillers. Thus, resorcin and epichlorohydrin were reacted to give epoxy resin I (epoxy equivalent 130 g/equiv), which was mixed with methylnadic anhydride and 2-ethyl-4-methylimidazole and thermally cured to give a specimen, showing Tg 184° and flexural strength 160 MPa.

L35 ANSWER 36 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:362084 HCAPLUS Full-text

DOCUMENT NUMBER: 142:393254

TITLE: Crystallization-prevented liquid epoxy resins, their compositions, and cured articles with high heat resistance and good mechanical strength therefrom

INVENTOR(S): **Akatsuka, Yasumasa; Nakanishi, Masataka**

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

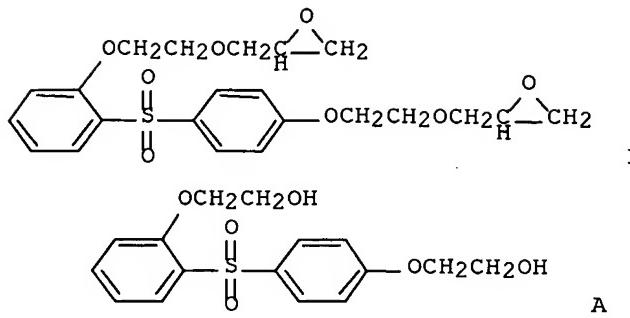
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005112897	A	20050428	JP 2003-345393	20031003
PRIORITY APPLN. INFO.:			JP 2003-345393	20031003
GI				



AB The compns., useful for elec. devices, adhesives, coatings, etc., comprise liquid epoxy resins I, curing agents, and optionally curing accelerators and inorg. fillers. Thus, 2,4'-bis(2-hydroxyethoxy)diphenyl sulfone was reacted with epichlorohydrin to give epoxy resin I (epoxy equivalent 228 g/equiv), which was mixed with methylnadic anhydride and 2-ethyl-4-methylimidazole and thermally cured to give a specimen, showing Tg 169° and flexural strength 135 MPa.

L35 ANSWER 37 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:57196 HCAPLUS Full-text

DOCUMENT NUMBER: 142:115150

TITLE: Modified epoxy resins, their manufacture, compositions based on them, and cured products thereof

INVENTOR(S): Nakanishi, Masataka; Motegi, Shigeru; Tanaka, Ryutaro

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005015582	A	20050120	JP 2003-180788	20030625
PRIORITY APPLN. INFO.:			JP 2003-180788	20030625

AB The modified epoxy resins with good heat resistance and balanced mech. properties are manufactured by dissolving epoxidized phenol aralkyl resins having biphenyl structure and rubbers having end groups reactive with epoxy groups in organic solvents and causing reaction while distilling off the organic solvents under heating and reduced pressure. Thus, 550 parts phenol aralkyl-type epoxy resin (NC 3000H) was blended with 55 parts Hycar CTBN and 330 parts PhMe, heated to 80°, mixed with 0.2 part PPh3, stirred at 110° and 95-105 kPa while distilling off the solvent, further stirred at 140° for 4 h after the PhMe recovery reached 275 parts, and freed of residual PhMe to give 605 parts rubber-modified epoxy resin, 160 parts of which was blended with 101 parts phenol aralkyl resin and 1.6 parts PPh3, transfer molded, and cured by heating to give a test piece showing Tg 140°, bending strength 109 MPa, flexural modulus 2.8 GPa, and Izod impact strength 40.2 kJm.

L35 ANSWER 38 OF 45 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:878578 HCPLUS Full-text
 DOCUMENT NUMBER: 141:372895
 TITLE: Liquid crystal sealing agent containing epoxy resin
 and liquid crystal display cell using the same
 INVENTOR(S): Imaizumi, Masahiro; Asano, Toyofumi; Ochi, Naoyuki;
 Hirano, Masahiro; Ichimura, Sumio; Kudo, Masaru;
 Oshimi, Katsuhiko; Nakanishi, Masataka; Akatsuka,
 Yasumasa; Nishihara, Eiichi; Itai, Masayuki
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004090621	A1	20041021	WO 2004-JP4972	20040406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2521615	A1	20041021	CA 2004-2521615	20040406
EP 1612597	A1	20060104	EP 2004-725989	20040406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1771460	A	20060510	CN 2004-80009250	20040406
US 2006208219	A1	20060921	US 2005-552183	20051006
PRIORITY APPLN. INFO.:			JP 2003-103566 A 20030408	
			JP 2003-103590 A 20030408	
			WO 2004-JP4972 W 20040406	

AB The liquid crystal sealing agent is characterized in that it comprises a bisphenol S-type epoxy resin represented by A[(OR)_n-OG]a (a = 2-4; n = 0-3; R = divalent hydrocarbon group having two to six carbon atoms; A = multivalent aromatic group; and G = glycidyl group), a heat curing agent, and a filler having an average particle diameter $\leq 3 \mu\text{m}$. The liquid crystal sealing agent, with extremely low in the property of staining a liquid crystal and excellent in the workability in the application to a substrate and in a combining operation, exhibits a long working life and pot life, and has a high adhesion strength.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 39 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:757017 HCPLUS Full-text
 DOCUMENT NUMBER: 141:278323
 TITLE: Photosensitive resin composition and curing product thereof
 INVENTOR(S): Tanaka, Ryutaro; Koyanagi, Hiroo
 PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 40 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004079452	A1	20040916	WO 2004-JP2718	20040304
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2518457	A1	20040916	CA 2004-2518457	20040304
EP 1600812	A1	20051130	EP 2004-717285	20040304
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
CN 1756993	A	20060405	CN 2004-80006007	20040304
US 2006102051	A1	20060518	US 2005-547907	20050906
PRIORITY APPLN. INFO.:			JP 2003-59309	A 20030306
			JP 2003-166038	A 20030611
			WO 2004-JP2718	W 20040304

AB Title photosensitive resin composition has good sensitivity to actinic energy rays, is hardenable within a short period of time, and can form pattern through development with a dilute aqueous alkali solution to give a cured film through thermal curing in the postcuring step. The composition comprises (1) an aqueous alkali-soluble urethane resin obtained by the reaction of a cyclic carboxylic acid anhydride with the reaction products of a diisocyanate compound, a diol compound having an ethylenically unsatd. group, a diol compound having a carboxyl group, and, optionally, a diol compound not having any ethylenically unsatd. group or carboxyl group, (2) a photopolymer initiator; and (3) a reactive crosslinking agent. The composition has applications in manufacture of flexible printed circuit boards.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

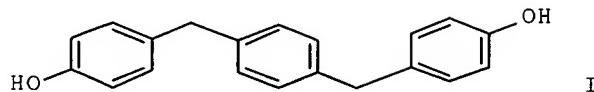
L35 ANSWER 40 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:547748 HCPLUS Full-text
 DOCUMENT NUMBER: 141:96738
 TITLE: Thermal printing material containing phenolic compound color developer
 INVENTOR(S): Tsugawa, Hiroaki; Akatsuka, Yasumasa; Nakanishi, Masataka
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 2004188755
PRIORITY APPLN. INFO.:
GI

A 20040708 JP 2002-358984
JP 2002-358984

20021211
20021211



AB The material comprises a support coated with a heat sensitive layer containing a colorless color former and I as a color developer. The material shows high sensitivity and gives stable images without background fog.

L35 ANSWER 41 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:289642 HCPLUS Full-text

DOCUMENT NUMBER: 140:304711

TITLE: Low-viscosity epoxy resins, their compositions, and their cured products with excellent heat and moisture stability

INVENTOR(S): Nakanishi, Masataka; Akatsuka, Yasumasa; Suzuki, Fumiyoishi

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

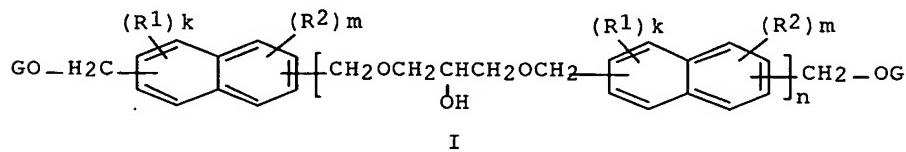
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004107497	A	20040408	JP 2002-272474	20020919

PRIORITY APPLN. INFO.:

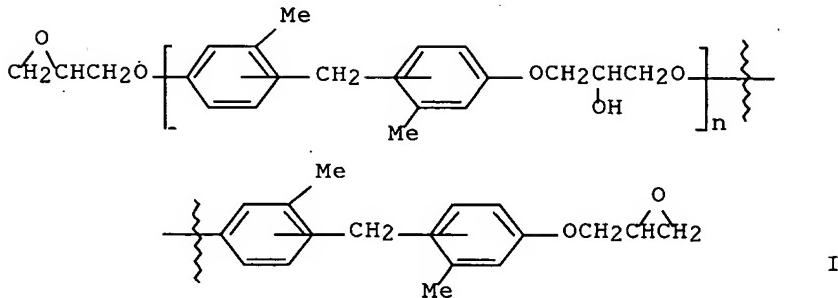
GI 20020919



AB The epoxy resins are I [G = glycidyl; R1, R2 = H, halo, C1-10 alkyl, allyl; k, m = 1-3; n = 0-8 (as average)]. The compns., useful for elec. insulators, adhesives, coatings, etc., comprise the resins and curing agents and optionally contain curing accelerators and inorg. fillers. Thus, a composition of 1,6-naphthalenedimethanol-epichlorohydrin copolymer (η 201 mPa-s, epoxy equiv 106 g/equiv) 480, Kayahard MCD (methyl nadic anhydride) 474, and 2E4MZ 6 parts was cured in a mold to give a product showing Tg 171° and water absorption 0.9%.

L35 ANSWER 42 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:179980 HCPLUS Full-text
 DOCUMENT NUMBER: 140:218593
 TITLE: Liquid epoxy resin, epoxy resin composition, and cured
 composition showing heat and water resistance
 INVENTOR(S): Akatsuka, Yasumasa; Nakanishi, Masataka
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004067724	A	20040304	JP 2002-224801	20020801
JP 4036289	B2	20080123		
PRIORITY APPLN. INFO.:		JP 2002-224801		20020801
GI				



AB The liquid epoxy resin is that represented as I, which is mixed with a hardener to give the composition. The composition is cured to give the product with heat resistance comparable to conventional room temperature-solid triphenylmethane-type epoxy resin composition. Thus, 114 parts bis(1-hydroxy-3-methylphenyl)methane and 370 parts epichlorohydrin were polymerized in the presence of NaOH at 50-70° for 3 h to give the epoxy resin, 100 parts of which was mixed with 108 parts hardener (Kayahard MCD) and 1 part 2-ethyl-4-methylimidazole and cured at 80-180° for 8 h to give test pieces showing glass-transition temperature 175° and increase of weight 0.75% after 20 h in water at 100°.

L35 ANSWER 43 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:117861 HCPLUS Full-text
 DOCUMENT NUMBER: 140:164744
 TITLE: Storage-stable one-pot epoxy resin compositions and
 their cured articles

INVENTOR(S): **Akatsuka, Yasumasa; Suzuki, Fumiyo**
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004043533	A	20040212	JP 2002-199557	20020709
JP 4023594	B2	20071219		

PRIORITY APPLN. INFO.: JP 2002-199557 20020709

AB The epoxy resin compns. contain (a) powdered epoxy resins having m.p. $\geq 150^\circ$, dispersed in (b) hardeners. Thus, 99.5 parts tetra(4-hydroxyphenyl)ethylene was reacted with 370 parts epichlorohydrin in MeOH containing NaOH to give 95 parts white crystal powders with 168 g/epoxy equiv and m.p. 185° , 100 parts of which was mixed with 95 parts Kayahard MCD (hardener) and 1 part 2-ethyl-4-methylimidazole to give a liquid composition having viscosity 350 and 370 mPa-s, initially and after 72 h at 80° , resp., and Tg of the cured (200°) article 231° .

IT **654639-22-2P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (storage-stable one-pot epoxy resin compns. and their cured articles)

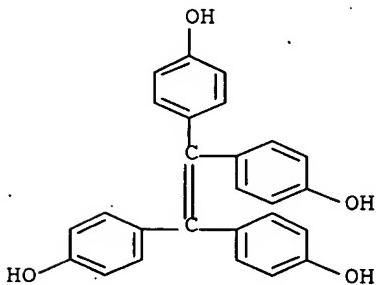
RN 654639-22-2 HCAPLUS

CN 4,7-Methanoisobenzofuran-1,3-dione, 3a,4,7,7a-tetrahydromethyl-,
 (3aR,4S,7R,7aS)-rel-, polymer with (chloromethyl)oxirane and
 4,4',4'',4'''-(1,2-ethenediyliidene)tetrakis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 119301-59-6

CMF C26 H20 O4

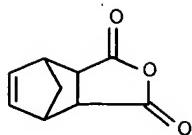


CM 2

CRN 25134-21-8

CMF C10 H10 O3

CCI IDS

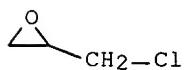


D1-Me

CM 3

CRN 106-89-8

CMF C3 H5 Cl O



IT 30621-65-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(storage-stable one-pot epoxy resin compns. and their cured articles)

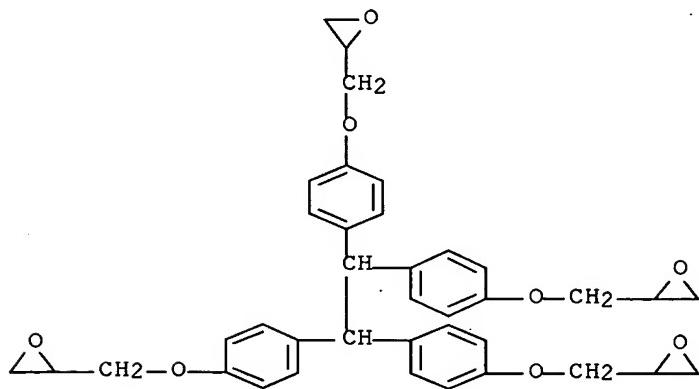
RN 30621-65-9 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis-, homopolymer (CA INDEX NAME)

CM 1

CRN 7328-97-4

CMF C38 H38 O8



L35 ANSWER 44 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:906349 HCPLUS Full-text

DOCUMENT NUMBER: 138:5031

TITLE: Photosensitive polyurethane resins, photosensitive

INVENTOR(S): resin compositions therewith, and cured articles
Tanaka, Ryutaro; Koyanagi, Hiroo; Ozaki, Toru;
Yokoshima, Minoru

PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 62 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094904	A1	20021128	WO 2002-JP4700	20020515
W: CA, CN, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2002338652	A	20021127	JP 2001-147218	20010517
JP 2003147043	A	20030521	JP 2001-348344	20011114
JP 3846856	B2	20061115		
JP 2003155320	A	20030527	JP 2001-355269	20011120
JP 2003268067	A	20030925	JP 2002-68347	20020313
PRIORITY APPLN. INFO.:			JP 2001-147218	A 20010517
			JP 2001-348344	A 20011114
			JP 2001-355269	A 20011120
			JP 2002-68347	A 20020313

AB Title resins soluble in an aqueous alkali solution are obtained by reacting (A) an epoxy carboxylate compound obtained by reacting an epoxy compound having two epoxy groups with a monocarboxylic acid compound having an ethylenically unsatd. double bond with (B) a diisocyanate compound, (C) a carboxylic acid compound having two hydroxyl groups, and optionally (D) a diol compound excluding A and C and/or (E) an epoxy compound having an ethylenically unsatd. group. Title resin compns. with good photosensitivity can give cured articles with good flexibility, adhesion, pencil hardness, solvent resistance, acid resistance, heat resistance, and gold plating resistance. Thus, 340.0 g EP 807 was reacted with 144.1 g acrylic acid at 98°, 134.1 g 2,2-dimethylolpropionic acid and 111.15 g isophorone diisocyanate were added therein to give a 70%-solids alkaline solution soluble polyurethane acrylate solution with acid value 46.2 mg-KOH/g, 51.80 g of which was mixed with DPCA ε-caprolactone-modified dipentaerythritol hexaacrylate 3.38, Irgacure 907 4.50, DETX-S 0.45, YX 4000 epoxy resin 17.62, melamine curing catalyst 1.0, barium sulfate 15.15, phthalocyanine blue 0.45, Byk 354 0.39, and KS 66 0.39 to give a photosensitive resin composition, which was applied on a printed board, irradiated with an UV using a mask, developed with 1% sodium carbonate, cured at 150° for 60 min to give a cured article.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 45 OF 45 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1997:191586 HCPLUS Full-text
 DOCUMENT NUMBER: 126:186899
 TITLE: Low melt viscosity epoxy resin mixtures, epoxy resin compositions, and heat-resistant cured products
 INVENTOR(S): **Akatsuka, Yasumasa; Kuboki, Kenichi; Shimamura, Yoshiro; Morita, Hiromi; Oono, Hiroaki**
 PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

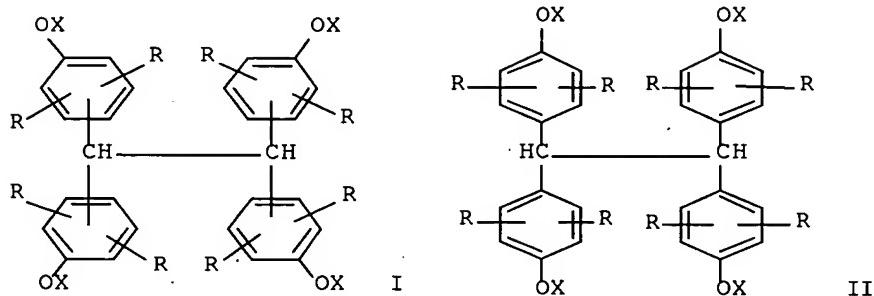
Japanese

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09003162	A	19970107	JP 1995-178016	19950622
JP 3573530	B2	20041006		
PRIORITY APPLN. INFO.:			JP 1995-178016	19950622
OTHER SOURCE(S):	MARPAT	126:186899		
GI				



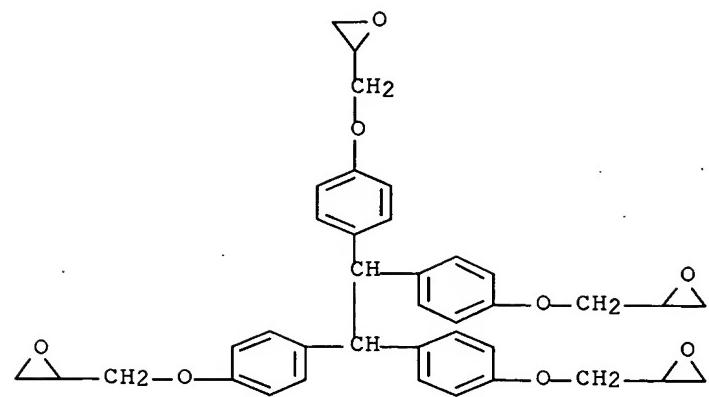
AB Title mixts. of I ($R = H$, C1-9 alkyl, aryl, halo; $X = \text{glycidyl or hydrogen}$) contain $\geq 80\%$ II ($R, X = \text{same as above}$). Compns. containing the mixts., curing agents, and optionally curing accelerators for giving title cured compns., are useful for molding materials, laminates, coatings, adhesives, and resists, etc. Thus, 149 parts mixture of I ($R = H, X = H$) containing 98 mol% II ($R = H, X = H$) was treated with 555 parts epichlorohydrin in the presence of NaOH to obtain 219 parts a mixture of I ($R = H; X = \text{glycidyl}$) containing 98 mol% II ($R = H; X = \text{glycidyl}$), 100 parts of which was mixed with 64.6 parts phenol novolak, kneaded transfer-molded, and cured to obtain a test piece showing glass temperature 192°.

IT 7328-97-4

RL: POF (Polymer in formulation); USES (Uses)
(low melt viscosity epoxy resin compns. for heat-resistant cured products)

RN 7328-97-4 HCPLUS

CN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(4,1-phenyleneoxymethylene)]tetrakis- (CA INDEX NAME)



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